HZ/RC/STE
EPA ID# LAD008187080

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

MAY 4 2009

Lisa Perry
Dow Chemical Company
P.O. Box 150
Plaquemine, LA 70765
ldperry@dow.com

Re: EPA RCRA Compliance Inspection
EPA ID# LAD008187080

Dear Ms. Perry:

The Environmental Protection Agency conducted an unannounced Compliance Evaluation Inspection at the Dow Chemical Company on February 11-12, 2009. Based on the information contained in the enclosed inspection report, there are areas of concern identified at your facility for which EPA intends to take enforcement action under the Resource Conservation Recovery Act (RCRA). The attachments except for the photo log are not included in this report but will be sent upon request.

Please review the inspection report and make the appropriate changes at your facility as discussed in the report. Be advised that EPA may communicate with you about the resolution of these concerns as they apply to RCRA at a later date. A copy of the CEI report will be e-mailed to the Louisiana Department of Environmental Quality. If you have any questions regarding this matter, please contact me at (214) 665-8006 or e-mail to Smith.Rhonda@epa.gov.

Sincerely yours

Rhonda Smith, Chief
Compliance Enforcement Section (6EN-HE)

Enclosure

cc: Ms. Phyllis Luke
Louisiana Department of Environmental Quality
P.O. Box 4312
Baton Rouge, LA 70821-4312
Phyllis.Luke@la.gov

U.S. ENVIRONMENTAL PROTECTION AGENCY

RESOURCE CONSERVATION & RECOVERY ACT
COMPLIANCE EVALUATION INSPECTION REPORT

Facility Name: **DOW CHEMICAL COMPANY**

EPA ID Number: **LAD008187080** Inspection Date: **February 11-12, 2009**

Facility Location: **Hwy 1 and Woodlawn Road**
Plaquemine, LA 70765

Facility Mailing Address: **P.O. Box 150**
Plaquemine, Louisiana 70765

Type of Industry: **NAICS Codes: 325181, 325199, 325211, 325998**
Senior Environmental Specialist: **Ms. Lisa Perry**
Telephone: **(225) 353-4316**

Facility Description: **Dow Chemical Company manufactures chemical, plastic, and agricultural products.**

Type of Ownership: ___Federal ___State ___County ___Municipal **X** Private

Did facility request a copy of the report? **X** YES ___NO

HW Activities:	**X** Gen	___Treatment	**X** Storage (<90d)
	___Storage	**X** Disposal	___Transporter
Inspect. Type:	**X** Lead	___Overview	___Subpart CC
	X CEI	___CDI	___Sampling
	___PCE	___Land Ban	___BIF
	___Multi-Media		___Maquiladora

Inspection Participants: (name and phone number)

EPA Lead Inspector: **Ryan Rosser** **(214) 665-2247**

Facility Representatives: **Lisa Perry** **(225) 353-4316**
Julie Roussel
Mark Mitchell
Randy Riddick
Bob Brady
William Nipper

Other Participants: **Pat Devillier (LDEQ)** **(225) 219-3453**

Checklists Completed: (Indicate number attached.)

___Generator	___TSD	___Transporter	___Generator Supplement
___Containers	___Incinerator	___Landfill	___Surface Impoundments
___Tanks	___Land Ban	___Groundwater	___Land Treatment
___Used Oil	___BIF	___Waste Piles	___Thermal Treatment
___Subpart CC	___LOIS	___Closure	___Post Closure
___Subpart BB	___Subpart AA		
X Photographs	___Chemical, Physical, Biological Treatment		
X Attachments (facility documents)			

Apparent violations noted during out briefing: **See Narrative - Areas of Concern Section**

Reviewed by: _____ Date: 3/26/09

DOW CHEMICAL COMPANY - NARRATIVE

Introduction

On Wednesday and Thursday, February 11-12, 2009, the U.S. Environmental Protection Agency (EPA) conducted a Resource Conservation & Recovery Act (RCRA), Compliance Evaluation Inspection (CEI) at the Dow Chemical Company (Dow), located in Plaquemine, Louisiana. The purpose of the inspection was to observe and review the facility's secondary containment systems for hazardous waste tanks, specifically as they are regulated under RCRA.

The EPA Inspector, Mr. Ryan Rosser, accompanied by Louisiana Department of Environmental Quality (LDEQ) representative, Mr. Pat Devillier, arrived at the Dow facility the day of February 11, 2009 to begin the CEI. The EPA Inspector presented the visitor's office with his credentials, announced the purpose of the visit, and requested to see the facility Environmental Manager. The visitor's office contacted Mr. William Nipper, Environmental Health and Safety (EHS) Specialist. Shortly thereafter, the EPA Inspector, Mr. Devillier, and Mr. Nipper left the visitor's center and arrived at a conference room to meet with Ms. Lisa Perry, Ms. Julie Roussel and Messrs. Randy Riddick and Mark Mitchell. Attachment A provides the list of names of Dow staff present during the entrance and exit interview. During the entrance meeting, the lead EPA Inspector showed the Dow staff his credentials, handed Ms. Perry a Xeroxed copy of the RCRA Section 3007, and explained the EPA's authority to conduct inspections and the reason for the CEI. The entrance meeting continued with Ms. Perry and Dow staff explaining daily operations and processes, and solid/hazardous waste management practices to the EPA Inspector.

Background/History

The Dow facility located at Highway 1 and Woodlawn Road, Plaquemine, Louisiana has been in operation since 1956. The facility manufactures chemicals, plastics and agricultural products. Dow employs about 1,500 staff employees with an additional 1,000 contractors. The facility occupies approximately 1,100 acres along the Mississippi River. Dow is a Large Quantity Generator (LQG) with three (3) active less-than-90 day tanks and ten (10) active RCRA permitted hazardous waste tanks.

Operations/Processes

The Dow facility consists of multiple operating plants, office buildings, landfills, tank farms, and storage areas. Some of these include but are not limited to the Environmental Operations Plant, Solvents Plant, Vinyl Plant, Cellulose Plant, Vector Plant, and Methane Plant. Dow has active less-than-90 day hazardous waste tanks located in the Vinyl 2, Cellulose, and Vector Plants. Dow's RCRA permitted hazardous waste tanks are located in the Vinyl 2, Solvents and Methane Plants. The hazardous waste tanks located in the Environmental Operations Plant have been dismantled and/or no longer in service. The secondary containment systems for both the less-than-90 day tanks and RCRA permitted tanks are constructed of bare concrete.

The Solvents Plant currently produces chlorinated hydrocarbons and chlorines such as carbon tetrachloride (Carbon Tet) and ethylene dichloride (EDC). The Solvents Plant houses six (6) RCRA permitted tanks identified as tanks D-13, D-15, D-92A, D-700, D-701, and D-42B-1. The plant also houses a permitted hazardous waste incinerator. Tanks D-92A, D-700, D-701 and D-42-B share the same secondary containment system.

The Vinyl 2 Plant produces vinyl chloride and EDC. The Vinyl 2 Plant also houses two (2) RCRA permitted tanks and one less-than-90 day tank. The RCRA permitted tanks are identified as T-400-2 and T-410. The less-than-90 day tank is identified as S-240. The plant also houses two (2) boiler and industrial furnace (BIF) units. Tanks T-400-2 and T-410 share the same secondary containment system.

The Cellulose Plant produces methyl cellulose. The Cellulose Plant also generates a liquid waste stream used to feed a BIF unit in the Methane Plant. The plant houses two (2) less than 90-day tanks identified as T-39 and T-121. Tank T-121 was out of service at the time of the inspection. According to facility personnel, tank T-121 has been out of service since March 7, 2007.

The Vector Plant is a joint venture between Dow and Exxon Mobil. The primary products produced in the Vector Plant include but are not limited to styrene, and rubber pellets. The Vector Plant houses one (1) less-than-90 day tank identified as D-730. There were no RCRA permitted tanks at the time of the inspection.

The Methane Plant is used to produce methane. The Methane Plant has two (2) RCRA permitted tanks. The RCRA permitted tanks are identified as D-750 and D-751. Tanks D-750 and D-751 share the same secondary containment system.

Site Tour

After the EPA Inspector and Dow staff completed discussing the facility's processes and operations, the EPA Inspector requested to conduct a site inspection of the secondary containment systems for the facility's hazardous waste tanks. The EPA Inspector, Mr. Devillier and Dow staff which included Ms. Perry and Ms. Roussel (Group) left the conference room and arrived at the facility's Vector Plant.

Upon arriving at the Vector Plant, the EPA Inspector met with additional Dow personnel assigned to the Vector Plant to help provide additional information about the plant's hazardous waste tanks. The EPA Inspector first observed the less-than-90 day tank labeled, D-730 (Photograph #1). Tank D-730 was a horizontal bullet tank raised a few feet above the ground. Dow personnel stated tank D-730 is used to store wastewater, cyclohexane waste, isoprene waste, and isopentane waste and has a total capacity of 17,000 gallons. Tank D-730 was housed with non-RCRA regulated production tanks in the same secondary containment system. The secondary containment system was constructed of bare concrete (Photograph #2). A few cracks in the containment floor were filled in with a material later identified as a silicon elastomer. The material safety data sheet (MSDS) is provided in Attachment C. The EPA Inspector also observed an opening and/or a gap in the containment wall of the secondary containment system for Tank D-730 (Photograph #3). According to Dow personnel, the opening in the containment wall is to allow storm water runoff to empty into a collection system. Dow personnel further stated the runoff in the collection system is sampled prior to any discharges to the division canal. It was unclear whether the collection system was lined.

The Group left the Vector Plant and arrived at the Cellulose Plant. The Cellulose Plant housed less-than-90 day tanks T-39, and T-121. The EPA Inspector first observed tank T-121. A sign posted on the tank read out of service as of March 7, 2007 (Photograph #4). The EPA Inspector then observed tank T-39. Tank T-39 was raised a few feet above the ground (Photograph #5). According to Dow personnel, tank T-39 was used to store wastewater, methyl chloride waste, and methocel waste and has a total capacity of 7,000 gallons. The secondary containment system for tank T-39 was constructed of bare concrete (Photograph #6). The EPA Inspector observed a small opening in the back wall of the containment system. On the opposite side of the wall of the opening was a valve. Dow personnel stated the valve and opening were used to drain liquids out of the secondary containment system and into a drain collection system. The drain collection system goes to the Environmental Operations Plant.

Next, the Group left tank the Cellulose Plant and arrived at the Methane Plant. The EPA Inspector observed RCRA permitted tanks, D-750 and D-751. Both tanks were horizontal bullet tanks raised above the ground (Photograph #7). Dow personnel stated tanks D-750 and D-751 were used to store methyl fluoride waste, chloroform waste, carbon tet waste, hydrochloric acid waste, sulfuric acid waste, and chlorinated methane waste. Dow personnel further stated tank D-750 has a total capacity of 940 gallons and tank D-751 has a total capacity of 6,018 gallons. The tanks share a secondary containment system constructed of bare concrete. The EPA Inspector

observed portions of the secondary containment system floor that were cracked and/or weathered (Photograph #8).

The Group then left the Methane Plant and arrived at the Solvents Plant. The EPA Inspector first observed RCRA permitted tanks, D-13 and D-15. Both tanks were horizontal bullet tanks raised a few feet above ground (Photographs #9 and #10). According to Dow personnel, tanks D-13 and D-15 were used to store hexachloro compound waste. Tank D-13 has a total capacity of 2,500 gallons and tank D-15 has a total capacity of 22,670 gallons. Both RCRA permitted tanks share a secondary containment system constructed of bare concrete (Photograph #11). The EPA Inspector observed cracks filled in on the floor of the containment system. The material used to fill in the cracks was later identified by Dow personnel as an epoxy called Semstone®. Next, the EPA Inspector observed RCRA permitted tank, D-92-A. Tank D-92-A was a horizontal bullet tank raised above ground (Photograph #12). Dow personnel stated tank D-92-A was used to store carbon tet waste and perchloroethylene waste. The tank has a total capacity of 370 gallons and shares a secondary containment system with hazardous waste tanks D-42, D-700, and D-701. The EPA Inspector then observed tank D-42. Tank D-42 is a RCRA permitted tank with a total capacity of 2,768 gallons (Photograph #13). According to Dow personnel, tank D-42 was used to store multiple hazardous waste including carbon tet. The secondary containment system was constructed of bare concrete and had sections of accumulated liquids (Photographs #14 and #17). The EPA Inspector next observed RCRA permitted tanks D-700 and D-701 (Photographs #15 and #16). Dow personnel stated tank D-700 has a total capacity of 4,800 gallons and was used to store multiple waste including carbon tet waste and trichloroethane waste. Dow personnel further stated tank D-701 has a total capacity of 50 gallons. The EPA Inspector observed an unknown liquid that had accumulated on the containment floor under tank D-701 (Photograph #17).

The Group left the Solvents Plant and arrived at the Vinyls 2 Plant. The EPA Inspector first observed RCRA permitted tank, T-400-2. According to Dow personnel, tank T-400-2 was used to store chlorinated organic waste and has a total capacity of 49,800 gallons (Photograph #18). Tank T-400-2 sat on a concrete pad in a secondary containment system constructed of bare concrete. The EPA Inspector observed cracks in the containment flooring that were filled in with an epoxy called Semstone® (Photograph #19). The EPA Inspector next observed RCRA tank T-410-2 (Photograph #20). Tank T-410-2 shared a secondary containment system with tank T-400-2. The secondary containment system was constructed of bare concrete. Dow personnel stated tank T-410-2 was used to store hazardous liquid waste and has a total capacity of 375 gallons. Lastly, the EPA Inspector observed less-than-90 day tank, S-240. Dow personnel stated tank S-240 was used to store laboratory waste (Photograph #21). The secondary containment system for tank S-240 was constructed of bare concrete.

The Group then left the Vinyls 2 Plant and arrived at the Environmental Operations Plant. The EPA Inspector concluded the site tour by observing the area that used to house the hazardous waste tanks. According to Dow personnel, the tanks had been removed. Afterwards the Group returned to the conference room to discuss the documents requested by the EPA Inspector for review.

Records Review

During the entrance interview and site tour, the EPA Inspector requested a list of documents for review. Attachment C provides copies of the documents requested for the records review. These documents include but are not limited to site maps, daily inspection logs for hazardous waste tanks, material safety data sheets (MSDS), and construction schematics for the secondary containment systems. After reviewing the requested documents, the EPA Inspector conducted an exit briefing with the Senior Environmental Specialist (Ms. Lisa Perry) and additional Dow staff. During the exit briefing, the EPA Inspector outlined areas of concern. The areas of concern are listed in the section titled, "Areas of Concern".

Areas of Concern

1.) During the inspection, the EPA Inspector observed cracks in the flooring of the secondary containment system for RCRA permitted tanks D-750 and D-751 located in the Methane Plant. According to 40 CFR 264.193 (e)(1)(iii) – external liner systems must be free of cracks or gaps.

2.) During the inspection, the lead EPA Inspector observed a gap in the secondary containment wall for RCRA permitted tank D-730 located in the Vector Plant. Dow personnel stated the gap was used to collect storm water runoff into a collection system. It was unclear to the EPA Inspector whether the collection system was properly lined. According to 40 CFR 265.193(e)(1)(iii) – external liner systems must be free of cracks or gaps.

3.) During the inspection, the lead EPA Inspector observed an unknown liquid that had accumulated on the secondary containment system flooring below hazardous waste tank D-701 in the located in the Solvent Plant. According to 40 CFR 264.193(c)(4) – spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within 24 hours.

Index to the Attachments

A. RCRA CEI Participants

- Business Card
- RCRA CEI Participant List

B. Photographic Documentation

- Photographic Log

C. Documents Submitted by Dow Chemical Company

- Copy of Facility Site Map
- Copies of Hazardous Waste Tank Inspection Logs
- Copies of Material Safety Data Sheets
- Copies of Secondary Containment Schematics

ATTACHMENT B

PHOTOGRAPHIC DOCUMENTATION

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 1

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1302 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Above ground hazardous waste storage tank, D-730, located in the facility's Vector Plant. Tank D-730 is a RCRA 90-day tank with a total capacity of 17,000 gallons. According to facility personnel, Tank D-730 holds wastewater, cyclohexane waste, isoprene waste, and isopentane waste.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 2

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1305 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Secondary containment system flooring for Tank D-730. The secondary containment system is constructed of bare concrete. Hazardous waste tank D-730 shares the secondary containment system with non-RCRA regulated production tanks.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 3

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1307 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: The secondary containment system for Tank D-730 has an opening and/or gap in the wall. According to facility personnel, the opening/gap in the wall is to allow storm water runoff to empty into a collection system. Facility personnel further stated the collection system is sampled prior to any discharges to the division canal. Note: It is unclear whether or not the collection system is fully lined.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 4

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1330 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Above ground hazardous waste tank, T-121 located in the facility's Cellulose Plant. Note: Tank T-121 was out of service at the time of the inspection.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 5

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1345 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Above ground hazardous waste tank, T-39, located in the facility's Cellulose Plant. Tank T-39 is a RCRA 90-day tank with a total capacity of 7,000 gallons. According to facility personnel, tank T-39 holds wastewater, methyl chloride waste, and methocel waste.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 6

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1346 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Secondary containment system flooring for tank T-39. The secondary containment system was constructed of bare concrete.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 7

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1453 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Above ground hazardous waste tanks, D-750 and D-751, located in the facility's Methane Plant. Tank D-750, pictured on the right, is a RCRA permitted tank with a total capacity of 940 gallons. Tank D-751, pictured on the left, is also a RCRA permitted tank with a total capacity of 6,018 gallons. According to facility personnel, tanks D-750 and D-751 hold methyl fluoride waste, chloroform waste, carbon tetrachloride waste, hydrochloric acid waste, sulfuric acid waste, and chlorinated methane waste. The secondary containment system for tanks D-750 and D-751 was constructed of bare concrete.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 8

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1454 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Secondary containment system flooring for RCRA permitted tanks, D-750 and D-751. The secondary containment system was constructed of bare concrete. Note: The flooring had some cracks. According to facility personnel, the small opening in the wall pictured in the lower right portion of the photograph is an underground pipe which empties into a drainage collection system used for collection storm water runoff. On the opposite side of the containment wall is a valve for controlling flow through the opening.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 9

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1511 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Above ground hazardous waste tank, D-13, located in the facility's Solvent Plant. Tank D-13 is a RCRA permitted tank and holds 2,500 gallons. According to facility personnel, tank D-13 holds hexachloro compounds waste group. The secondary containment system was constructed of bare concrete.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 10

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1512 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Above ground hazard waste tank, D-15, located in the facility's Solvent Plant. Tank D-15 is a RCRA permitted tank with a total capacity of 22,670 gallons. According to facility personnel, tank D-15 holds hexachloro compounds waste group. Tank D-15 shares a secondary containment system with tank D-13. The secondary containment system was constructed of bare concrete.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 11

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1513 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: The secondary containment system for hazardous waste tanks D-13 and D-15 was constructed of bare concrete. The cracks were filled in with an epoxy identified as Semstone® according to an MSDS provided by the facility.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 12

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1520 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Above ground hazardous waste tank, D-92-A, located in the facility's Solvents Plant. Tank D-92-A is a RCRA permitted tank with a total capacity of 370 gallons. According to facility personnel, tank D-92-A holds carbon tetrachloride waste, and perchloroethylene waste. Tank D-92-A shares a secondary containment system with tank D-42. The secondary containment system was constructed of bare concrete.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

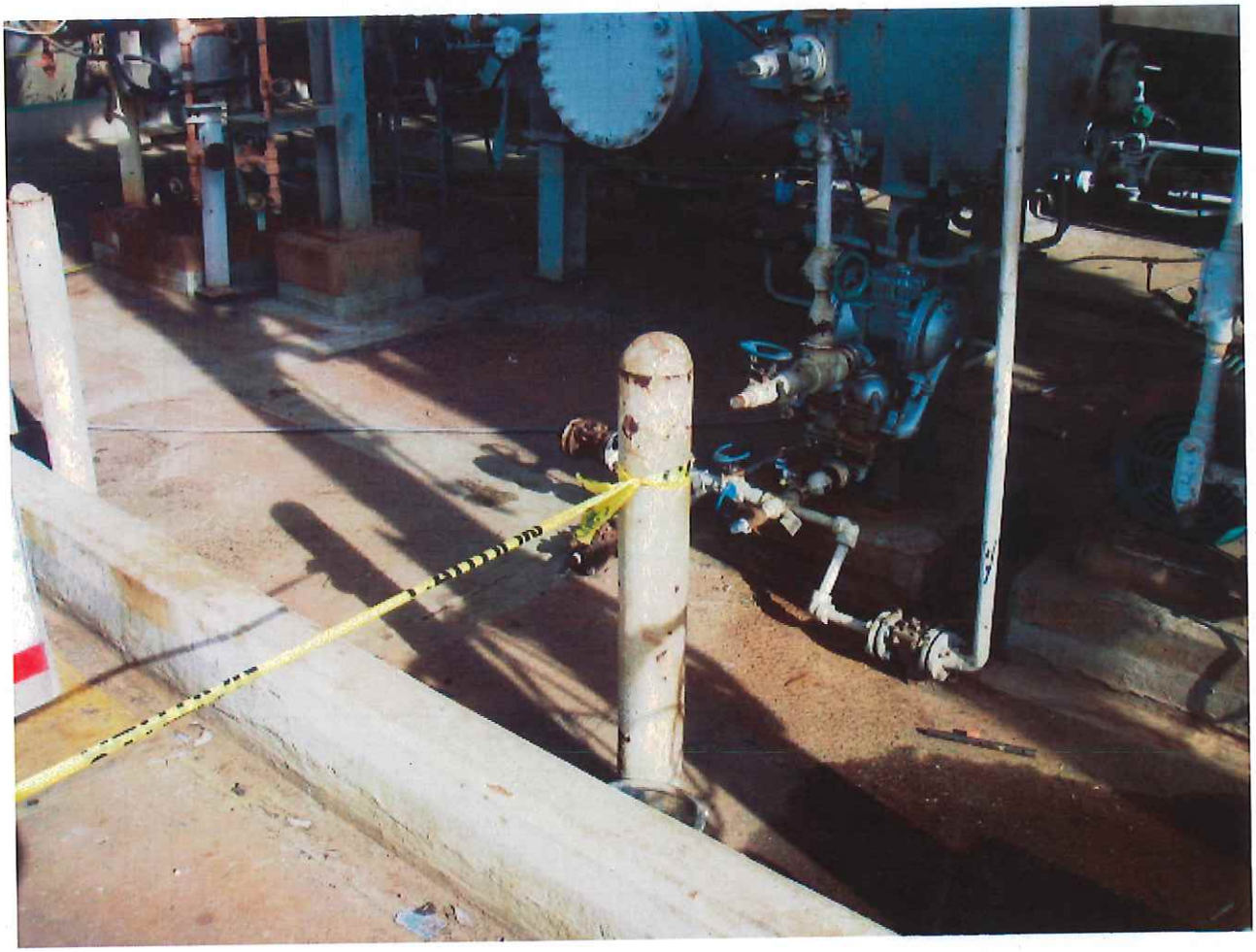
Photo # 13

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1521 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Hazardous waste tank, D-42, located in the facility's Solvent Plant. Tank D-42 is a RCRA permitted tank and has a capacity of 2,768 gallons. According to facility personnel, tank D-42 holds multiple wastes including carbon tetrachloride waste. Tank D-42 shares a secondary containment system with hazardous waste tank D-92-A.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 14



Photographer: Ryan Rosser	Date: 2/11/09	Time: 1522 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Secondary containment system for RCRA permitted tanks, D-92-A, D-42, D-700, and D-701. The secondary containment system was constructed of bare concrete.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

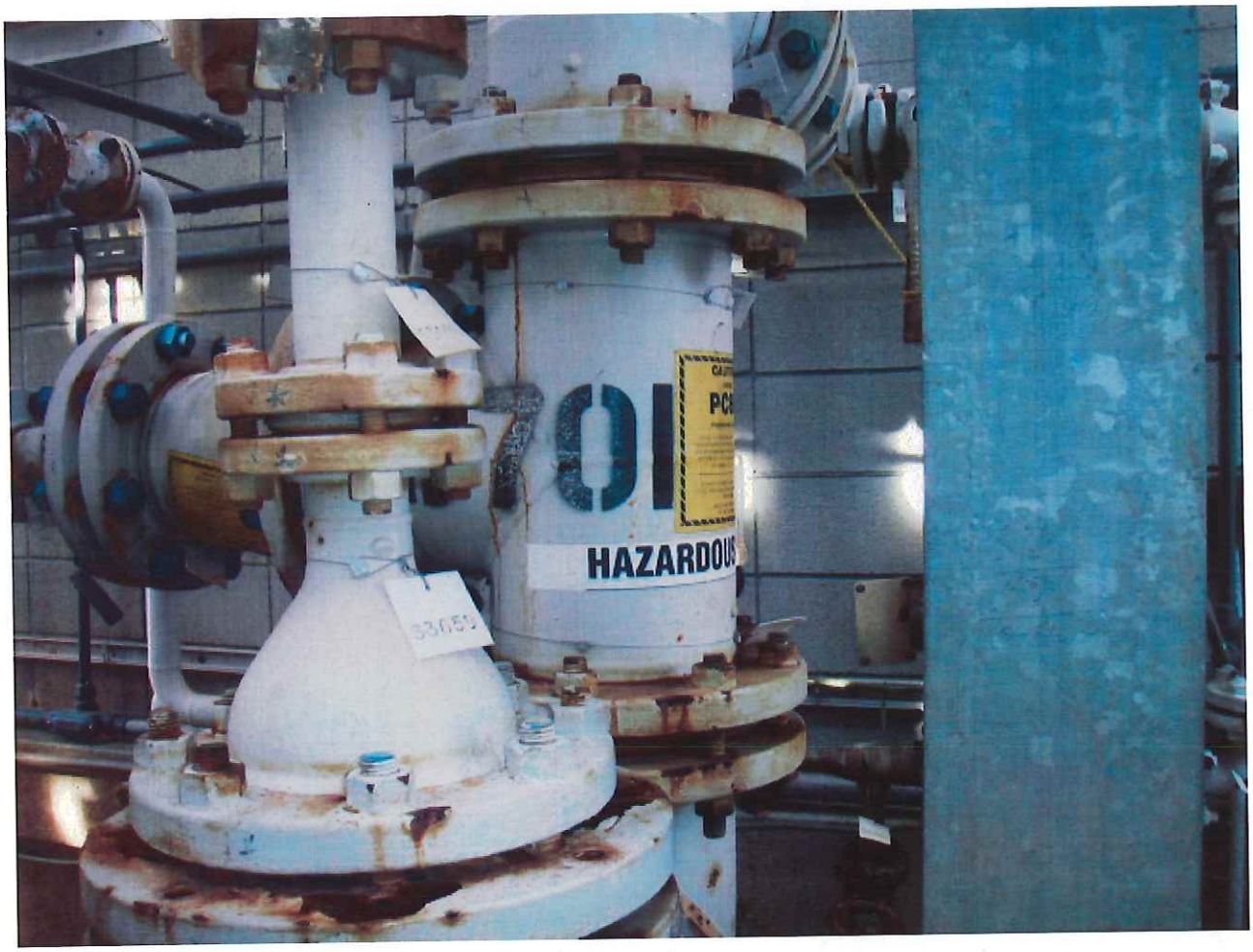
Photo # 15

Photographer: Ryan Rosser	Date: 2/11/09	Time: 1531 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Hazardous waste tank, D-700, located in the facility's Solvent Plant. Tank D-700 is a RCRA permitted tank with a total capacity of 4,800 gallons. According to facility personnel, tank D-700 holds carbon tetrachloride waste, trichloroethane waste, and other wastes. Tank D-700 shares the secondary containment system with tanks D-92-A, D-42, and D-701.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 16

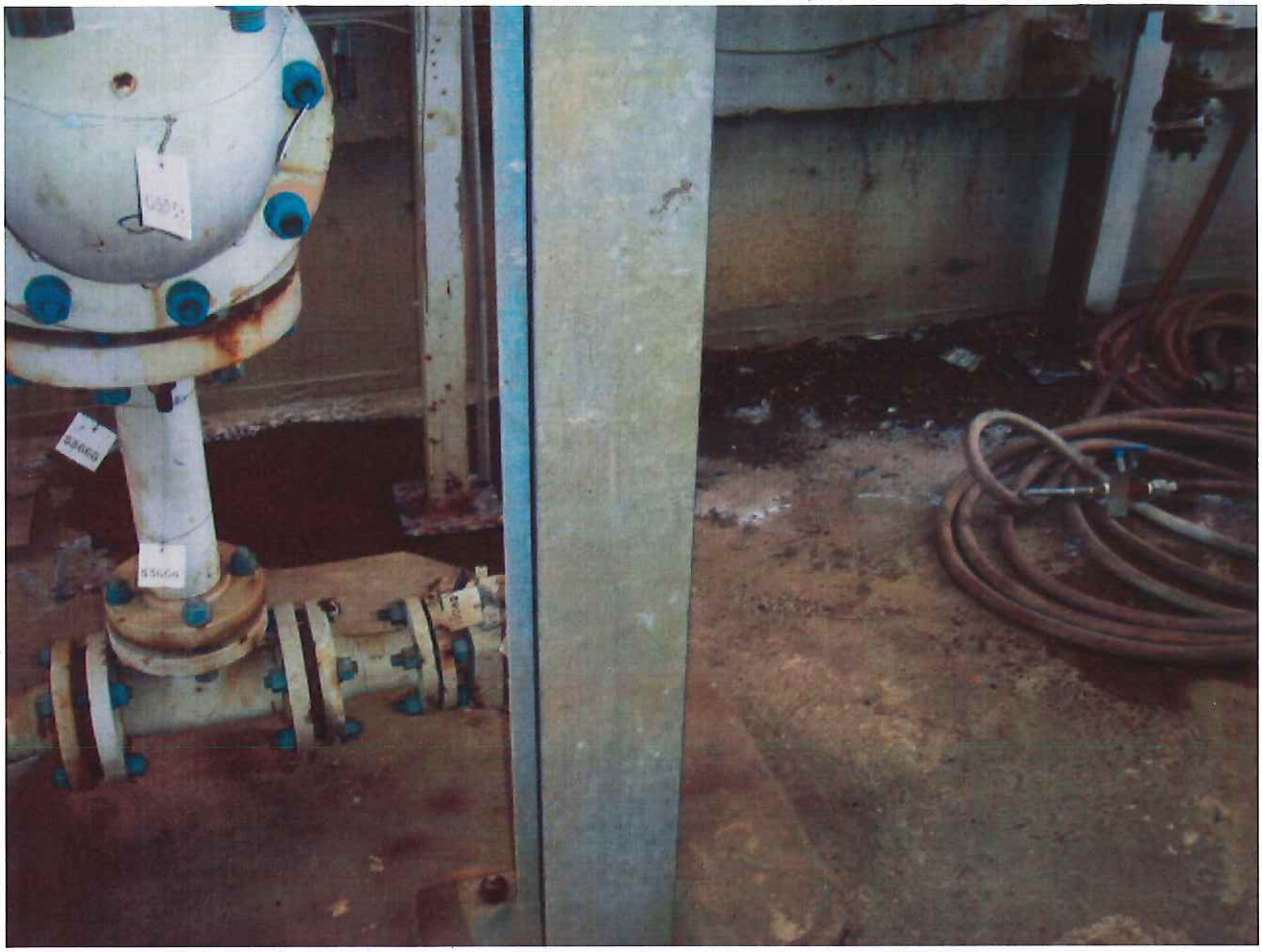


Photographer: Ryan Rosser	Date: 2/11/09	Time: 1532 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Hazardous waste tank, D-701, located in the facility's Solvent Plant. Facility personnel stated they have requested the Louisiana Department of Environmental Quality (LDEQ) remove tank D-701 from their RCRA permit because they believe it is not a tank. Tank D-701 has a total capacity of 50 gallons and shares a secondary containment system with tanks, D-92-A, D-42, and D-700.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 17

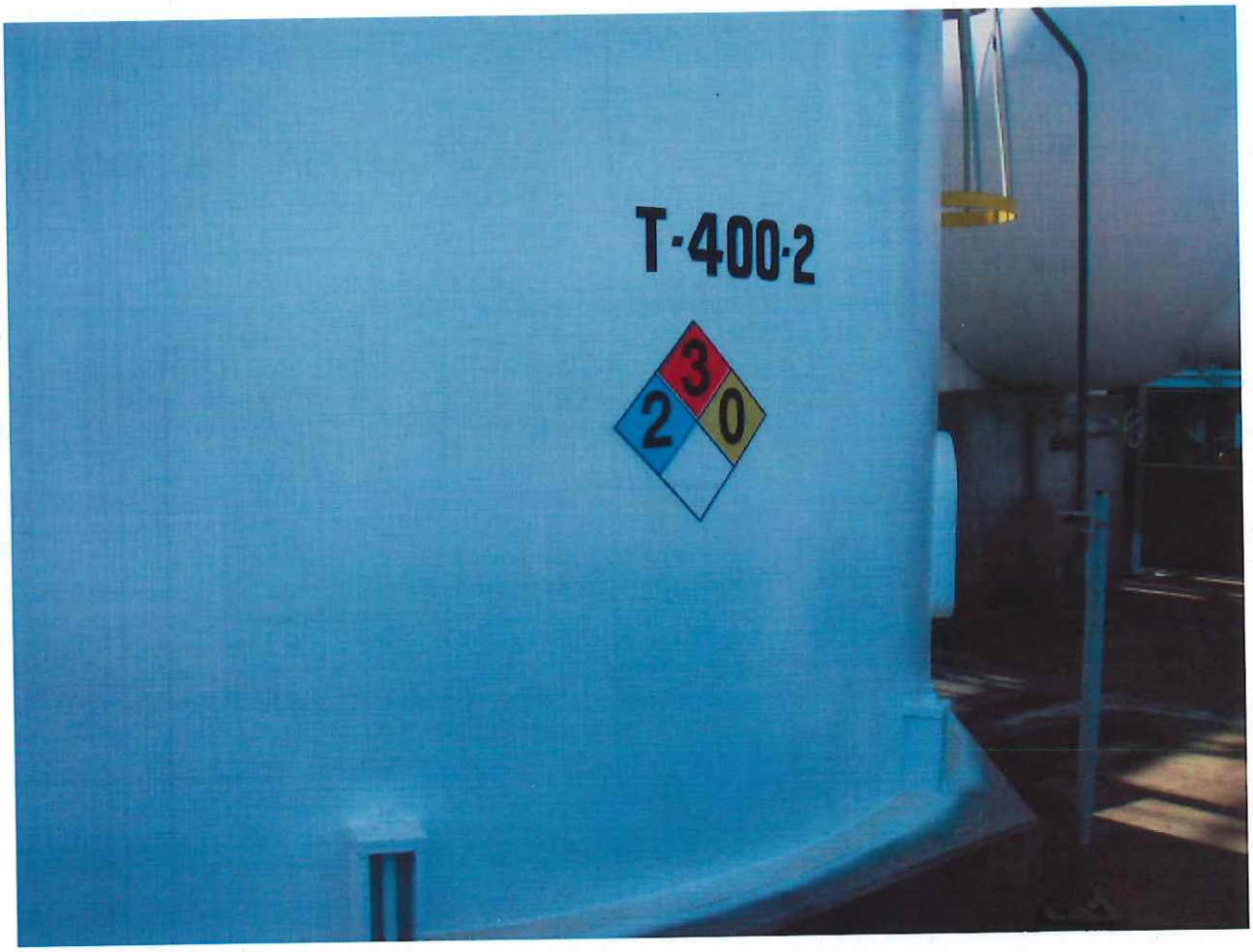


Photographer: Ryan Rosser	Date: 2/11/09	Time: 1533 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Secondary containment system flooring located below tank D-701. The secondary containment system was constructed of bare concrete. Note: The flooring looks eroded in some areas.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 18



Photographer: Ryan Rosser	Date: 2/12/09	Time: 0941 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Above ground hazardous waste tank, T-400-2, located in the facility's Vinyl 2 Plant. Tank T-400-2 is a RCRA permitted tank with a total capacity of 49,800 gallons. According to facility personnel, tank T-400-2 holds chlorinated organic wastes. The secondary containment system was constructed of bare concrete. Tank T-400-2 shares the secondary containment system with tank T-410-2.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 19

Photographer: Ryan Rosser	Date: 2/12/09	Time: 0942 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Secondary containment system flooring located adjacent to tank T-400-2. The secondary containment system was constructed of bare concrete. Cracks were filled in with an epoxy identified as Semstone® according to an MSDS provided by the facility.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 20

Photographer: Ryan Rosser	Date: 2/12/09	Time: 0943 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Above ground hazardous waste tank, T-410-2, located in the facility's Vinyl 2 Plant. Tank T-410-2 is a RCRA permitted tank with a total capacity of 375 gallons. According to facility personnel, tank T-410-2 holds liquid wastes. Tank T-410-2 shares a secondary containment system with tank T-400-2.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 21

Photographer: Ryan Rosser	Date: 2/12/09	Time: 0944 Hours
City/County: Plaquemine/ Iberville Parish		State: LA
Location: Dow Chemical Company		
Subject: Above ground hazardous waste tank, S-240, located in the facility's Vinyl 2 Plant. Tank S-240 is a RCRA 90-day tank and has a total capacity of 175 gallons. According to facility personnel, tank S-240 holds laboratory wastes. The secondary containment system for tank S-240 was constructed of bare concrete.		

ATTACHMENT A

RCRA CEI PARTICIPANTS

Lisa Perry
Senior Environmental Specialist

The Dow Chemical Company
Louisiana Operations
P.O. Box 150, Bldg. 3502
Plaquemine, LA 70765-0150
USA

Tel: 225-353-4316
Fax: 225-353-8001

ldperry@dow.com

EXIT INTERVIEW MEETING
DOW CHEMICAL
2/12/09

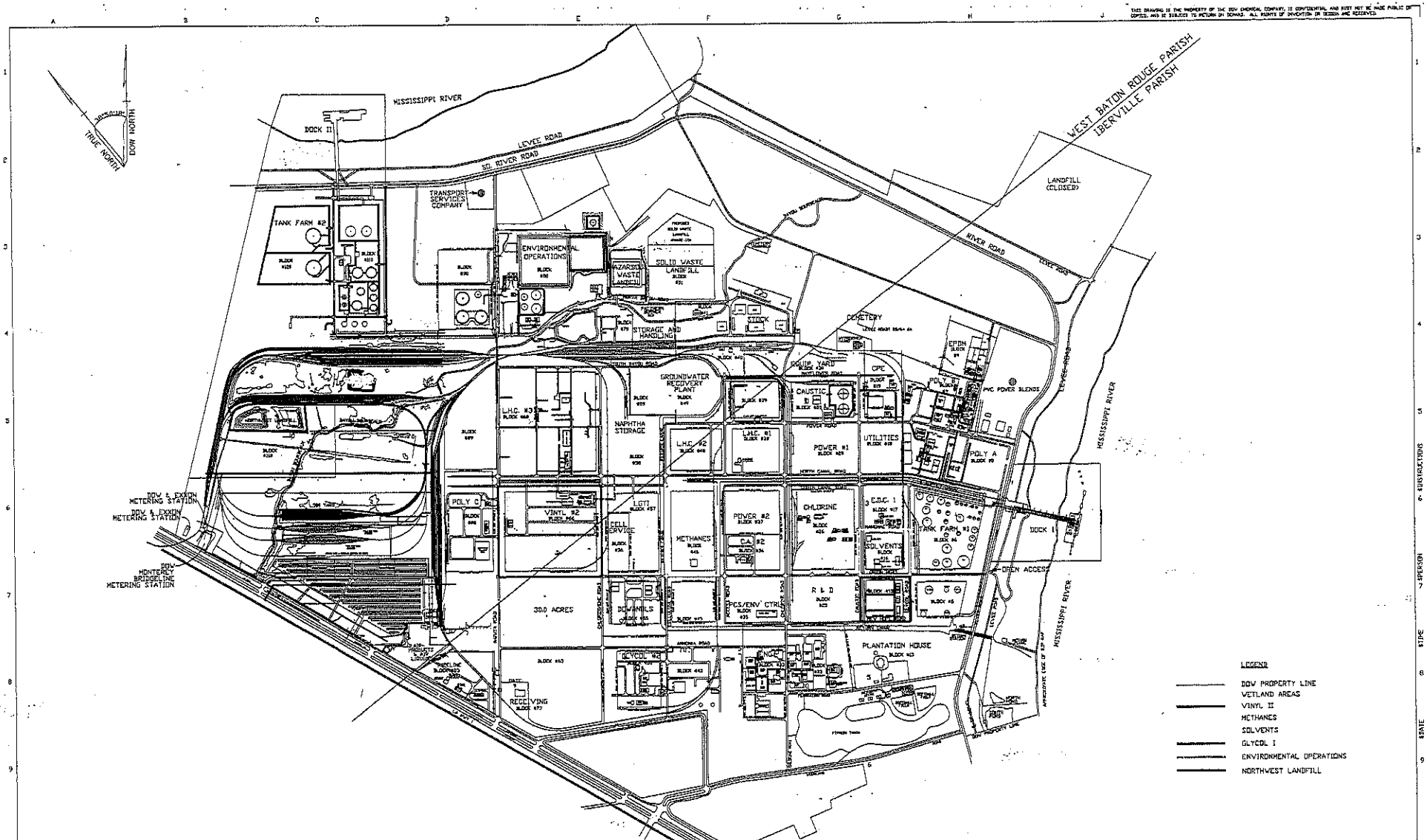
NAME	COMPANY/AGENCY	TITLE
RYAN TOSSER	U.S. EPA	INSPECTOR
Pat Deuillier	LDEQ Waste Permits	HW Engineer
Mark Mitchell	Dow	EHS
Lisa Perry	Dow	Dow
Julie Roussel	Dow	EHS
Bob Brady	Dow	EHS
William Nipper	Dow	EHS - Dow

DOW CHEMICAL CEI 12/11/09
ENTRY INTERVIEW

NAME	TITLE	
Pat Deville	LDEQ / Waste Permits Engineering	
RANDY RIDDICK	EHS DELIVERY LEADER/SPECIALIST	DOW
Mark Mitchell	EHS Delivery Leader	Dow
Julia H. Roussel	EHS Specialist	Dow
LISA Perry	RCRA Specialist	Dow
WILL NIPPER	EHS Specialist	Dow
RYAN FOSSER	INSPECTOR	EPA

ATTACHMENT C

DOCUMENTS SUBMITTED BY DOW CHEMICAL COMPANY



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REV. MARK	REVISION	BY	CHK	APP	DATE

REV. MARK	REVISION	BY	CHK	APP	DATE

DRAWING ISSUE RECORD

ISSUE NO.	REV	MATERIAL OR JOB SPEC	JOB	FAB	COMPT.	DEPT. DATE ISSUED FOR

DESIGNED
DRAWN STEPHEN SMITH 09/04
CHECKED
APPROVED
MECH. ENGR.
MFG. REP.

STATUS PLANT NO.
P.E. SEAL

THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION PLAQUEMINE, LOUISIANA

DRAWING 2. FACILITY LAYOUT DRAWING
DOW (PLAQUEMINE) – REV. 1: DECEMBER 2004
VOL. 1 – PART I RESPONSES

DRWG. NUMBER P8-003-W70-001 REV.
SCALE 1" = 600'
PRINTED VER.

DOV_LEGAL_DWG.DWG

Daily D-730 <90 Day Hazardous Storage Tank Inspection

Inspector

Inspector: Chuck Allen (first and last) Date: 12-31-08

Time: 8:30 (AM)/PM

D-730 Area

Description:	Yes	No	Comment/Action:
Evidence of Leaks (Drips, stains, odors in and around area, piping, control lines, valves and load lines to tank trailer)	___	✓	
Equipment Condition (Evidence of corrosion, chipping, general conditions or equipment)	___	✓	
Containment Condition (Cracks, gaps, pitting in containment area)	___	✓	
Liquid level in East Containment Area	___	✓	
If yes, level must be pumped down, Action Taken:			
Area Clean and Dry (General Good housekeeping)	✓	___	
D-730 Level – (Board)	9.3 %		
Tank Labels Ok (Clean, legible in good condition)	✓	___	
D-730 Last date emptied (Vinyl numbers are correct and visible)	12/19/08		
Operating Conditions OK (Tank level, pressure and temperature within OD guidelines)	✓	___	
Loading Area:			
(All line caps and bleed plugs secure)	✓	___	
Fire extinguishers: (inplace, ready condition and seal secure)			
D-730 Area 1) STA #11 20# DC	✓	___	
2) STA #12 20# DC	✓	___	

Work Orders

List all work orders: _____

Completed inspection round sheets to environmental contact

Retention time: 3 years + current year

Continued on next page

Daily D-730 <90 Day Hazardous Storage Tank Inspection

Inspector

Inspector: Dwayne Andrews (first and last) Date: 1/27/09

Time: 7:30 AM/PM

D-730 Area

Description:	Yes	No	Comment/Action:
Evidence of Leaks (Drips, stains, odors in and around area, piping, control lines, valves and load lines to tank trailer)		X	
Equipment Condition (Evidence of corrosion, chipping, general conditions or equipment)		X	
Containment Condition (Cracks, gaps, pitting in containment area)		X	
Liquid level in East Containment Area		X	
If yes, level must be pumped down, Action Taken:			
Area Clean and Dry (General Good housekeeping)	X		
D-730 Level – (Board)	____ %		
Tank Labels Ok (Clean, legible in good condition)	X		
D-730 Last date emptied (Vinyl numbers are correct and visible)	1/22/09		
Operating Conditions OK (Tank level, pressure and temperature within OD guidelines)	X		
Loading Area:			
(All line caps and bleed plugs secure)	X		
Fire extinguishers: (inplace, ready condition and seal secure)			
D-730 Area 1) STA #11 20# DC	X		
2) STA #12 20# DC	X		

Work Orders

List all work orders:

Completed inspection round sheets to environmental contact

Retention time: 3 years + current year

Continued on next page

Daily D-730 <90 Day Hazardous Storage Tank Inspection

Inspector

Inspector: _____ Date: _____
(first and last)

Time: _____ AM/PM

D-730 Area

Description:	Yes	No	Comment/Action:
Evidence of Leaks (Drips, stains, odors in and around area, piping, control lines, valves and load lines to tank trailer)	___	___	_____
Equipment Condition (Evidence of corrosion, chipping, general conditions or equipment)	___	___	_____
Containment Condition (Cracks, gaps, pitting in containment area)	___	___	_____
Liquid level in East Containment Area	___	___	_____
If yes, level must be pumped down, Action Taken:			_____
Area Clean and Dry (General Good housekeeping)	___	___	_____
D-730 Level – (Board)	_____ %		_____
Tank Labels Ok (Clean, legible in good condition)	___	___	_____
D-730 Last date emptied (Vinyl numbers are correct and visible)	___/___/___		_____
Operating Conditions OK (Tank level, pressure and temperature within OD guidelines)	___	___	_____
Loading Area:			
(All line caps and bleed plugs secure)	___	___	_____
Fire extinguishers: (inplace, ready condition and seal secure)			
D-730 Area 1) STA #11 20# DC	___	___	_____
2) STA #12 20# DC	___	___	_____

Work Orders

List all work orders: _____

Completed inspection round sheets to environmental contact

Retention time: 3 years + current year

Continued on next page

Daily Roundsheets

Related Documents None

Signature

This procedure checklist was completed by

(Name) (Date)

Document and Records Management

These final sections are to be completed by the Document Manager prior to releasing the procedure for use in EDMS.

The current procedure is filed in the Document Management System, Electronic component, under Audits, Checklists, Roundsheet / Roundsheets.

Forward this completed procedure checklist to the EH&S Delivery Tech.

Reviewed

This procedure was reviewed by:

Bobby Story 08/04/2008

(Name) (Date)

The review date in EDMS has been revised to meet the review schedule in PUP

Dawn Autin 08/04/2008

(Name) (Date)

Validation

This procedure was validated as the best known way to do this job by:

(Name/Job Title) (Date)

Approvals

This procedure was approved by:

Craig Leopard 01/07/06

(Name/Job Title) (Date)

MOC

MOC #: DATE APPROVED:

Revision history

The following information documents at least the last 3 changes to this document, with all the changes listed for the last 6 months.

Date	Revised By	Changes
09/01/05	B. Story	Reviewed without revision.
01/07/06	B. Rivet	Removed blower B-163.
08/06/07	B. Story	Reviewed without revision.
08/04/08	B. Story	Reviewed without revision.

DOW CORNING

DOW CORNING CORPORATION
Material Safety Data Sheet

Version: 1.3
Revision Date: 2006/12/05

DOW CORNING(R) NS PARKING STRUCTURE SEALANT

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Dow Corning Corporation
South Saginaw Road
Midland, Michigan 48686

24 Hour Emergency Telephone: (989) 496-5900
Customer Service: (989) 496-6000
Product Disposal Information: (989) 496-6315
CHEMTREC: (800) 424-9300

MSDS No.: 02708167

Revision Date: 2006/12/05

Generic Description: Silicone elastomer
Physical Form: Paste
Color: Gray
Odor: Amine-like odor

NFPA Profile: Health 2 Flammability 1 Instability/Reactivity 0

Note: NFPA = National Fire Protection Association

2. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Acute Effects

Eye: Direct contact may cause moderate irritation.

Skin: May cause mild irritation.

Inhalation: Irritates respiratory passages very slightly.

Oral: Low ingestion hazard in normal use.

Prolonged/Repeated Exposure Effects

Skin: Repeated or prolonged exposure may irritate seriously.

Inhalation: Overexposure by inhalation may injure the following organ(s): Testes. Liver. Pancreas. Spleen.

Oral: Repeated ingestion or swallowing large amounts may injure internally.

Signs and Symptoms of Overexposure

No known applicable information.

Medical Conditions Aggravated by Exposure

No known applicable information.

DOW CORNING(R) NS PARKING STRUCTURE SEALANT

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS Number	Wt %	Component Name
50791-87-2	1.0 - 5.0	Methylvinyl bis(n-methylacetamido) silane
68952-53-4	1.0 - 5.0	Dimethyl, methylethyl-N-hydroxyethamine siloxane

The above components are hazardous as defined in 29 CFR 1910.1200.

4. FIRST AID MEASURES

Eye:	Immediately flush with water for 15 minutes. Get medical attention.
Skin:	Remove from skin and wash thoroughly with soap and water or waterless cleanser. Get medical attention if irritation or other ill effects develop or persist.
Inhalation:	Remove to fresh air. Get medical attention if ill effects persist.
Oral:	Get medical attention.
Notes to Physician:	Treat according to person's condition and specifics of exposure.

5. FIRE FIGHTING MEASURES

Flash Point:	Not applicable.
Autoignition Temperature:	Not determined.
Flammability Limits in Air:	Not determined.
Extinguishing Media:	On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO2), dry chemical or water spray. Water can be used to cool fire exposed containers.
Fire Fighting Measures:	Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
Unusual Fire Hazards:	None.

6. ACCIDENTAL RELEASE MEASURES

Containment/Clean up:	Observe all personal protection equipment recommendations described in Sections 5 and 8. Wipe up or scrape up and contain for salvage or disposal. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

Note: See section 8 for Personal Protective Equipment for Spills. Call (989) 496-5900, if additional information is required.

7. HANDLING AND STORAGE

Use with adequate ventilation. Product evolves N-methyl acetamide when exposed to water or humid air. Provide ventilation during use to control N-methyl acetamide within exposure guidelines or use respiratory protection. Avoid eye contact. Avoid skin contact. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Do not take internally.

Use reasonable care and store away from oxidizing materials. Keep container closed and store away from water or moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

CAS Number	Component Name	Exposure Limits
50791-87-2	Methylvinyl bis(n-methylacetamido) silane	See N-methyl acetamide comments.

N-methyl acetamide is formed on contact with water or humid air. Provide adequate ventilation to control exposures to within Dow Corning recommended exposure guidelines of 1 ppm (TWA) and 5 ppm (Excursion Limit).

Engineering Controls

Local Ventilation:	Recommended.
General Ventilation:	Recommended.

Personal Protective Equipment for Routine Handling

Eyes:	Use proper protection - safety glasses as a minimum.
Skin:	Wash at mealtime and end of shift. If skin contact occurs, change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.

Suitable Gloves:	Avoid skin contact by implementing good industrial hygiene practices and procedures. Select and use gloves and/or protective clothing to further minimize the potential for skin contact. Consult with your glove and/or personnel protective equipment manufacturer for selection of appropriate compatible materials.
Inhalation:	Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. IH personnel can assist in judging the adequacy of existing engineering controls.
Suitable Respirator:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

Personal Protective Equipment for Spills

Eyes:	Use full face respirator.
Skin:	Wash at mealtime and end of shift. If skin contact occurs, change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.
Inhalation/Suitable Respirator:	Respiratory protection recommended. Follow OSHA Respirator Regulations (29 CFR 1910.134) and use NIOSH/MHSA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Precautionary Measures:	Avoid eye contact. Avoid skin contact. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Do not take internally. Use reasonable care.
Comments:	Product evolves N-methyl acetamide when exposed to water or humid air. Provide ventilation during use to control N-methyl acetamide within exposure guidelines or use respiratory protection.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	Paste
Color:	Gray
Odor:	Amine-like odor
Specific Gravity @ 25°C:	1.47
Viscosity:	Not determined.
Freezing/Melting Point:	Not determined.
Boiling Point:	Not determined.

Vapor Pressure @ 25°C:	Not determined.
Vapor Density:	Not determined.
Solubility in Water:	Not determined.
pH:	Not determined.
Volatile Content:	Not determined.
Flash Point:	Not applicable.
Autoignition Temperature:	Not determined.
Flammability Limits in Air:	Not determined.

Note: The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable.
Hazardous Polymerization:	Hazardous polymerization will not occur.
Conditions to Avoid:	None.
Materials to Avoid:	Oxidizing material can cause a reaction. Water, moisture, or humid air can cause hazardous vapors to form as described in Section 8.

Hazardous Decomposition Products

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde. Nitrogen oxides. Metal oxides.

11. TOXICOLOGICAL INFORMATION

Component Toxicology Information

Contains Bis(N-methyl acetamido)silane which liberates N-methylacetamide (NMA) during cure. NMA has been shown to cause birth defects in laboratory animals.

Special Hazard Information on Components

No known applicable information.

12. ECOLOGICAL INFORMATION

Environmental Fate and Distribution

Complete information is not yet available.

Environmental Effects

Complete information is not yet available.

Fate and Effects in Waste Water Treatment Plants

Complete information is not yet available.

Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <= 2000	>2000

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

13. DISPOSAL CONSIDERATIONS

RCRA Hazard Class (40 CFR 261)

When a decision is made to discard this material, as received, is it classified as a hazardous waste?

State or local laws may impose additional regulatory requirements regarding disposal.Call (989) 496-6315, if additional information is required.

14. TRANSPORT INFORMATION

DOT Road Shipment Information (49 CFR 172.101)

Not subject to DOT.

Ocean Shipment (IMDG)

Not subject to IMDG code.

Air Shipment (IATA)

Not subject to IATA regulations.

Call Dow Corning Transportation, (989) 496-8577, if additional information is required.

15. REGULATORY INFORMATION

Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

DOW CORNING(R) NS PARKING STRUCTURE SEALANT

TSCA Status: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

EPA SARA Title III Chemical Listings

Section 302 Extremely Hazardous Substances (40 CFR 355):
None.

Section 304 CERCLA Hazardous Substances (40 CFR 302):

CAS Number	Wt %	Component Name
68-12-2	0.7	Dimethylformamide
1330-20-7	0.1	Xylene

Section 311/312 Hazard Class (40 CFR 370):

Acute: Yes
Chronic: Yes
Fire: No
Pressure: No
Reactive: No

Section 313 Toxic Chemicals (40 CFR 372):

CAS Number	Wt %	Component Name
68-12-2	0.7	Dimethylformamide

Note: Chemicals are listed under the 313 Toxic Chemicals section only if they meet or exceed a reporting threshold.

Supplemental State Compliance Information

California

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm.

None known.

Massachusetts

CAS Number	Wt %	Component Name
1317-65-3	40.0 - 70.0	Limestone

New Jersey

DOW CORNING

DOW CORNING CORPORATION
Material Safety Data Sheet

Version: 1.3
Revision Date: 2006/12/05

DOW CORNING(R) SL PARKING STRUCTURE SEALANT

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Dow Corning Corporation
South Saginaw Road
Midland, Michigan 48686

24 Hour Emergency Telephone: (989) 496-5900
Customer Service: (989) 496-6000
Product Disposal Information: (989) 496-6315
CHEMTREC: (800) 424-9300

MSDS No.: 02708159

Revision Date: 2006/12/05

Generic Description: Silicone elastomer
Physical Form: Paste
Color: Charcoal
Odor: Amine-like odor

NFPA Profile: Health 2 Flammability 1 Instability/Reactivity 0

Note: NFPA = National Fire Protection Association

2. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Acute Effects

Eye: Direct contact may cause moderate irritation.

Skin: May cause mild irritation.

Inhalation: Irritates respiratory passages very slightly.

Oral: Low ingestion hazard in normal use.

Prolonged/Repeated Exposure Effects

Skin: Repeated or prolonged exposure may irritate seriously.

Inhalation: Overexposure by inhalation may injure the following organ(s): Testes. Liver. Pancreas. Spleen.

Oral: Repeated ingestion or swallowing large amounts may injure internally.

Signs and Symptoms of Overexposure

No known applicable information.

Medical Conditions Aggravated by Exposure

No known applicable information.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS Number	Wt %	Component Name
50791-87-2	1.0 - 5.0	Methylvinyl bis(n-methylacetamido) silane
68952-53-4	1.0 - 5.0	Dimethyl, methylethyl-N-hydroxyethamine siloxane

The above components are hazardous as defined in 29 CFR 1910.1200.

4. FIRST AID MEASURES

Eye:	Immediately flush with water for 15 minutes. Get medical attention.
Skin:	Remove from skin and wash thoroughly with soap and water or waterless cleanser. Get medical attention if irritation or other ill effects develop or persist.
Inhalation:	Remove to fresh air. Get medical attention if ill effects persist.
Oral:	Get medical attention.
Notes to Physician:	Treat according to person's condition and specifics of exposure.

5. FIRE FIGHTING MEASURES

Flash Point:	212 °F / 100 °C (Pensky-Martens Closed Cup)
Autoignition Temperature:	Not determined.
Flammability Limits in Air:	Not determined.
Extinguishing Media:	On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO2), dry chemical or water spray. Water can be used to cool fire exposed containers.
Fire Fighting Measures:	Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
Unusual Fire Hazards:	None.

6. ACCIDENTAL RELEASE MEASURES

Containment/Clean up:	Observe all personal protection equipment recommendations described in Sections 5 and 8. Wipe up or scrape up and contain for salvage or disposal. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

Note: See section 8 for Personal Protective Equipment for Spills. Call (989) 496-5900, if additional information is required.

7. HANDLING AND STORAGE

Use with adequate ventilation. Product evolves N-methyl acetamide when exposed to water or humid air. Provide ventilation during use to control N-methyl acetamide within exposure guidelines or use respiratory protection. Avoid eye contact. Avoid skin contact. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Do not take internally.

Use reasonable care and store away from oxidizing materials. Keep container closed and store away from water or moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

CAS Number	Component Name	Exposure Limits
50791-87-2	Methylvinyl bis(n-methylacetamido) silane	See N-methyl acetamide comments.

N-methyl acetamide is formed on contact with water or humid air. Provide adequate ventilation to control exposures to within Dow Corning recommended exposure guidelines of 1 ppm (TWA) and 5 ppm (Excursion Limit).

Engineering Controls

Local Ventilation:	Recommended.
General Ventilation:	Recommended.

Personal Protective Equipment for Routine Handling

Eyes:	Use proper protection - safety glasses as a minimum.
Skin:	Wash at mealtime and end of shift. If skin contact occurs, change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.

Suitable Gloves:	Avoid skin contact by implementing good industrial hygiene practices and procedures. Select and use gloves and/or protective clothing to further minimize the potential for skin contact. Consult with your glove and/or personnel protective equipment manufacturer for selection of appropriate compatible materials.
Inhalation:	Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. IH personnel can assist in judging the adequacy of existing engineering controls.
Suitable Respirator:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

Personal Protective Equipment for Spills

Eyes:	Use full face respirator.
Skin:	Wash at mealtime and end of shift. If skin contact occurs, change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.
Inhalation/Suitable Respirator:	Respiratory protection recommended. Follow OSHA Respirator Regulations (29 CFR 1910.134) and use NIOSH/MHSA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Precautionary Measures:	Avoid eye contact. Avoid skin contact. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Do not take internally. Use reasonable care.
Comments:	Product evolves N-methyl acetamide when exposed to water or humid air. Provide ventilation during use to control N-methyl acetamide within exposure guidelines or use respiratory protection.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	Paste
Color:	Charcoal
Odor:	Amine-like odor
Specific Gravity @ 25°C:	1.29
Viscosity:	Not determined.
Freezing/Melting Point:	Not determined.
Boiling Point:	Not determined.

Vapor Pressure @ 25°C:	Not determined.
Vapor Density:	Not determined.
Solubility in Water:	Not determined.
pH:	Not determined.
Volatile Content:	Not determined.
Flash Point:	212 °F / 100 °C (Pensky-Martens Closed Cup)
Autoignition Temperature:	Not determined.
Flammability Limits in Air:	Not determined.

Note: The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable.
Hazardous Polymerization:	Hazardous polymerization will not occur.
Conditions to Avoid:	None.
Materials to Avoid:	Oxidizing material can cause a reaction. Water, moisture, or humid air can cause hazardous vapors to form as described in Section 8.

Hazardous Decomposition Products

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Nitrogen oxides. Silicon dioxide. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde. Metal oxides. Quartz.

11. TOXICOLOGICAL INFORMATION

Component Toxicology Information

Contains Bis(N-methyl acetamido)silane which liberates N-methylacetamide (NMA) during cure. NMA has been shown to cause birth defects in laboratory animals.

Special Hazard Information on Components

No known applicable information.

12. ECOLOGICAL INFORMATION

Environmental Fate and Distribution

Complete information is not yet available.

Environmental Effects

Complete information is not yet available.

Fate and Effects in Waste Water Treatment Plants

Complete information is not yet available.

Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <= 2000	>2000

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

13. DISPOSAL CONSIDERATIONS

RCRA Hazard Class (40 CFR 261)

When a decision is made to discard this material, as received, is it classified as a hazardous waste?

State or local laws may impose additional regulatory requirements regarding disposal.Call (989) 496-6315, if additional information is required.

14. TRANSPORT INFORMATION

DOT Road Shipment Information (49 CFR 172.101)

Not subject to DOT.

Ocean Shipment (IMDG)

Not subject to IMDG code.

Air Shipment (IATA)

Not subject to IATA regulations.

Call Dow Corning Transportation, (989) 496-8577, if additional information is required.

15. REGULATORY INFORMATION

Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

DOW CORNING(R) SL PARKING STRUCTURE SEALANT

TSCA Status: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

EPA SARA Title III Chemical Listings

Section 302 Extremely Hazardous Substances (40 CFR 355):
None.

Section 304 CERCLA Hazardous Substances (40 CFR 302):

CAS Number	Wt %	Component Name
1330-20-7	0.2	Xylene

Section 311/312 Hazard Class (40 CFR 370):

Acute: Yes
Chronic: Yes
Fire: No
Pressure: No
Reactive: No

Section 313 Toxic Chemicals (40 CFR 372):
None present or none present in regulated quantities.

Note: Chemicals are listed under the 313 Toxic Chemicals section only if they meet or exceed a reporting threshold.

Supplemental State Compliance Information

California

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm.

None known.

Massachusetts

CAS Number	Wt %	Component Name
471-34-1	30.0 - 60.0	Calcium carbonate

New Jersey

CAS Number	Wt %	Component Name
70131-67-8	40.0 - 70.0	Dimethyl siloxane, hydroxy-terminated

471-34-1	30.0 - 60.0	Calcium carbonate
63148-62-9	10.0 - 30.0	Polydimethylsiloxane
50791-87-2	1.0 - 5.0	Methylvinyl bis(n-methylacetamido) silane
68952-53-4	1.0 - 5.0	Dimethyl, methylethyl-N-hydroxyethamine siloxane
14808-60-7	<=0.6	Quartz
1333-86-4	<1.0	Carbon black

Pennsylvania

CAS Number	Wt %	Component Name
70131-67-8	40.0 - 70.0	Dimethyl siloxane, hydroxy-terminated
471-34-1	30.0 - 60.0	Calcium carbonate
63148-62-9	10.0 - 30.0	Polydimethylsiloxane

16. OTHER INFORMATION

Prepared by: Dow Corning Corporation

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

(R) indicates Registered Trademark

DOW CORNING(R) NS PARKING STRUCTURE SEALANT

CAS Number	Wt %	Component Name
1317-65-3	40.0 - 70.0	Limestone
70131-67-8	40.0 - 70.0	Dimethyl siloxane, hydroxy-terminated
50791-87-2	1.0 - 5.0	Methylvinyl bis(n-methylacetamido) silane
68952-53-4	1.0 - 5.0	Dimethyl, methylethyl-N-hydroxyethamine siloxane

Pennsylvania

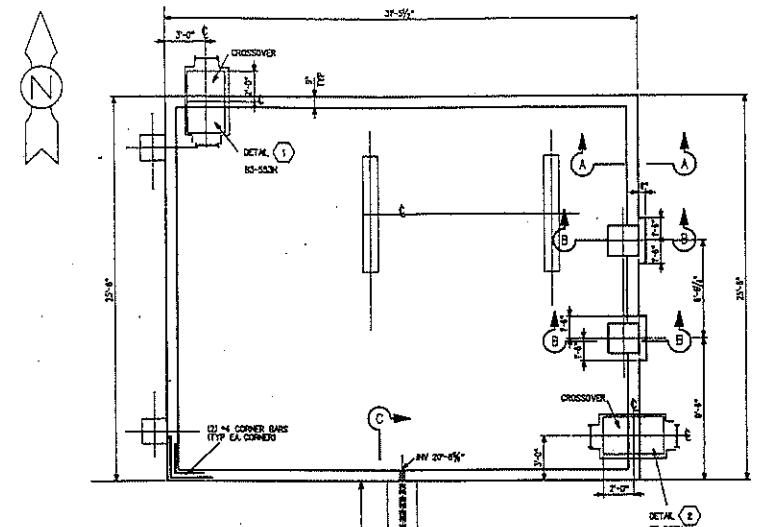
CAS Number	Wt %	Component Name
1317-65-3	40.0 - 70.0	Limestone
70131-67-8	40.0 - 70.0	Dimethyl siloxane, hydroxy-terminated

16. OTHER INFORMATION

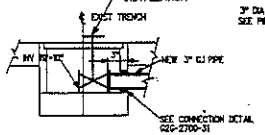
Prepared by: Dow Corning Corporation

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

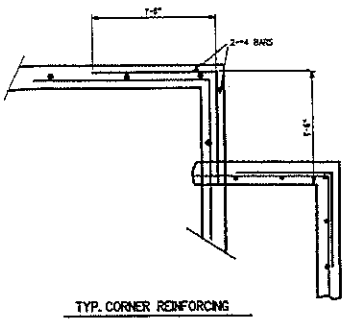
(R) indicates Registered Trademark



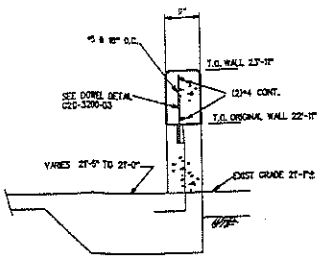
CONTAINMENT AREA
3/4"-1'-0"



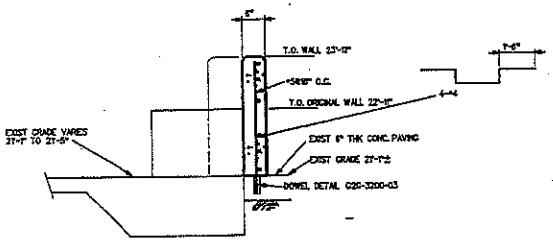
SECTION D-D
3/4"-1'-0"



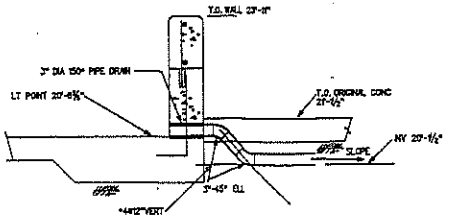
TYP. CORNER REINFORCING
NTS



SECTION A-A
3/4"-1'-0"



SECTION B-B
3/4"-1'-0"



SECTION C-C
3/4"-1'-0"

APPLICABLE SPECIFICATIONS

G25-3001-01 ---------- CONCRETE
G20-3200-03 ---------- DOWEL DETAIL
PIPE SPEC ---------- CO 07

REV. NUMBER	REVISION	BY	CHK	APP	DATE
A	ADDED DRAINAGE SYSTEM FOR CONTAINMENT AREA	MB	JH		12/4/98

DRAWING ISSUE RECORD

DESIGNED	W.BALLEY 10/98
DRAWN	W.BALLEY 10/98
CHECKED	JOHN HAGMANN 10/98
APPROVED	
FIELD ENGR.	DEBORA HUGHES 10/98
PROJ. ENGR.	SCOTT FREDRICKSON 10/98

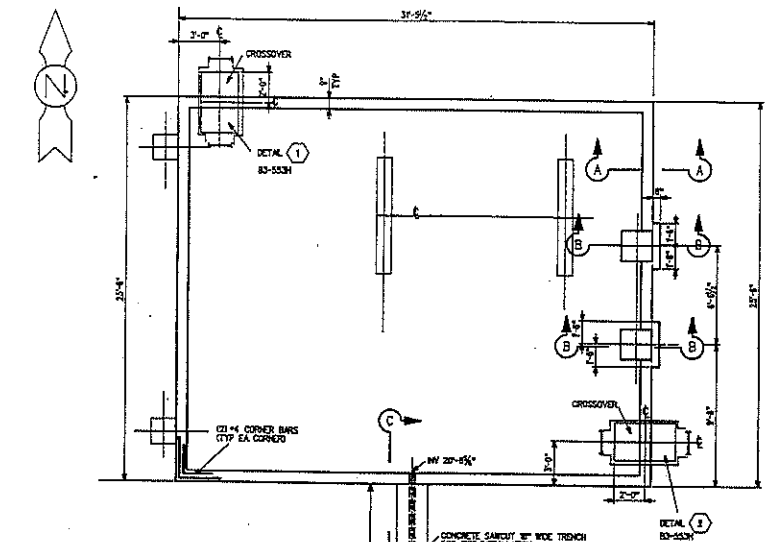
STATUS: FOR APPROVAL

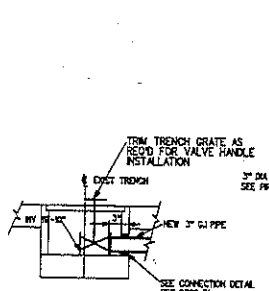
THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION — PLAQUEMINE, LOUISIANA
Dow Louisiana — BLOCK 46

D-750 & D-751 CONTAINMENT PLAN, SECTIONS AND DETAILS

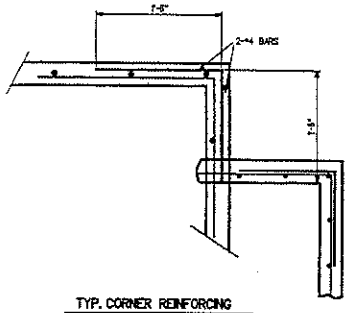
DWG. NUMBER	SCALE		REV.
185638	AS NOTED	B2-108019-555F-001	A

PRINTED

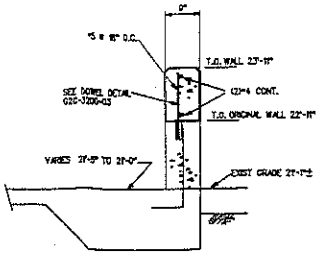




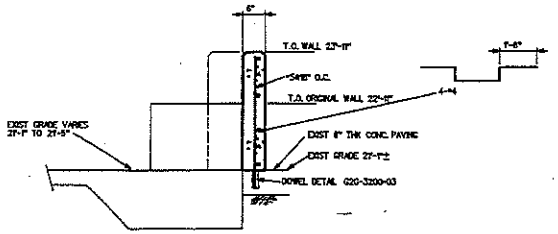
SECTION D-D
¾"=1'-0"



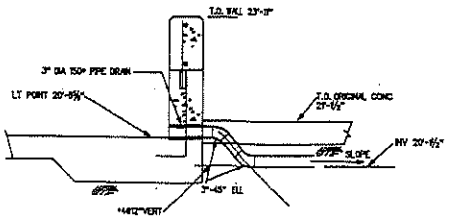
TYP. CORNER REINFORCING
NTS



SECTION A-A
¾"=1'-0"



SECTION B-B
¾"=1'-0"



SECTION C-C
¾"=1'-0"

APPLICABLE SPECIFICATIONS

C2S-3001-01 ——— CONCRETE
C2S-3200-03 ——— DOWEL DETAIL
PIPE SPEC ——— CO 07

MOD. NUMBER	REVISION	BY	CHK	APP	DATE
A	ADDED DRAINAGE SYSTEM FOR CONTAINMENT AREA	VB	JH		12/4/98

MOD. NUMBER	REVISION	BY	CHK	APP	DATE

DRAWING ISSUE RECORD

ISSUED NO.	KEY	MATERIAL OR JOB SPEC	SEC	TYP	CONST	APP	DATE ISSUED FOR

DESIGNED	W.BALLEY	10/98
DRAWN	W.BALLEY	10/98
CHECKED	JOHN HAGMANN	10/98
APPROVED		
FINAL APPR.	DEADRA HUGHES	10/98
PROJ. MGR.	SCOTT FREDRICKSON	10/98

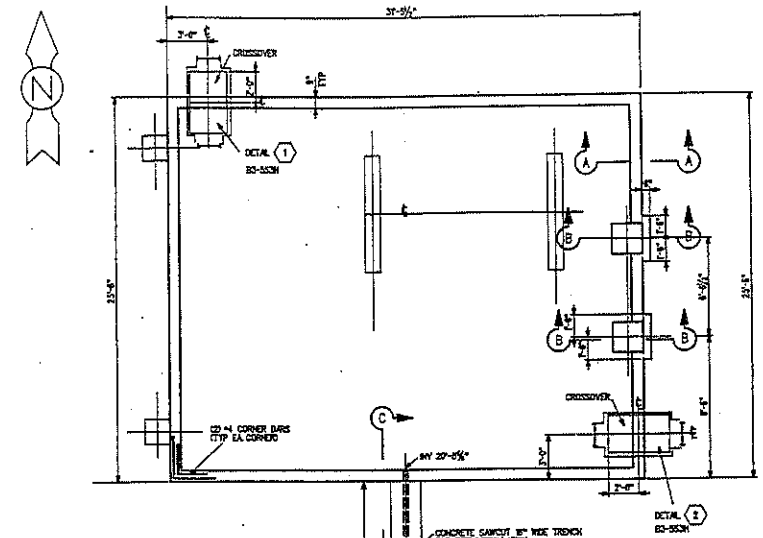
STATUS: FINAL ISSUE
PLANT NO.

THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION — PLAQUEMINE, LOUISIANA
Chlor-Methanes — BLOCK 46

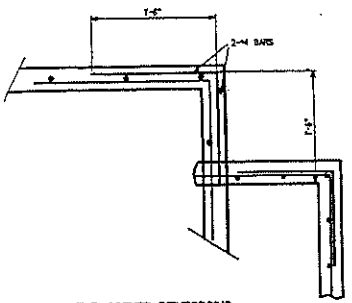
D-750 & D-751 CONTAINMENT PLAN, SECTIONS AND DETAILS

DRAWING NUMBER	SCALE	SHEET NO.
1055638	AS NOTED	B2-108019-555F-001

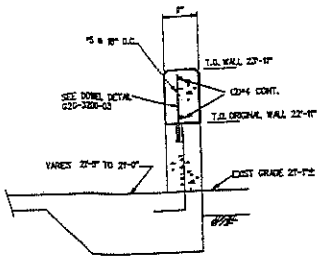
REV. A



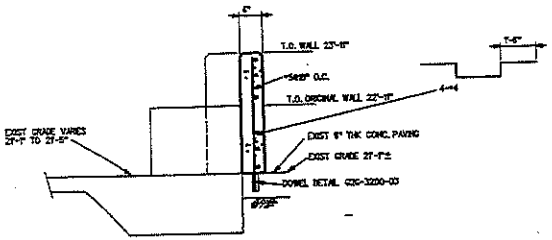
SECTION D-D
3/4"-1'-0"



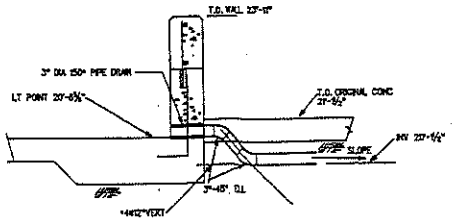
TYP. CORNER REINFORCING
NTS



SECTION A-A
3/4"-1'-0"



SECTION B-B
3/4"-1'-0"



SECTION C-C
3/4"-1'-0"

APPLICABLE SPECIFICATIONS

C25-3001-01 ——— CONCRETE
C20-3200-03 ——— DOWEL DETAIL
PIPE SPEC ——— CO 07

REVISION	BY	CHK	APP	DATE
A ADDED DRAINAGE SYSTEM FOR CONTAINMENT AREA	WB	JH		12/4/01

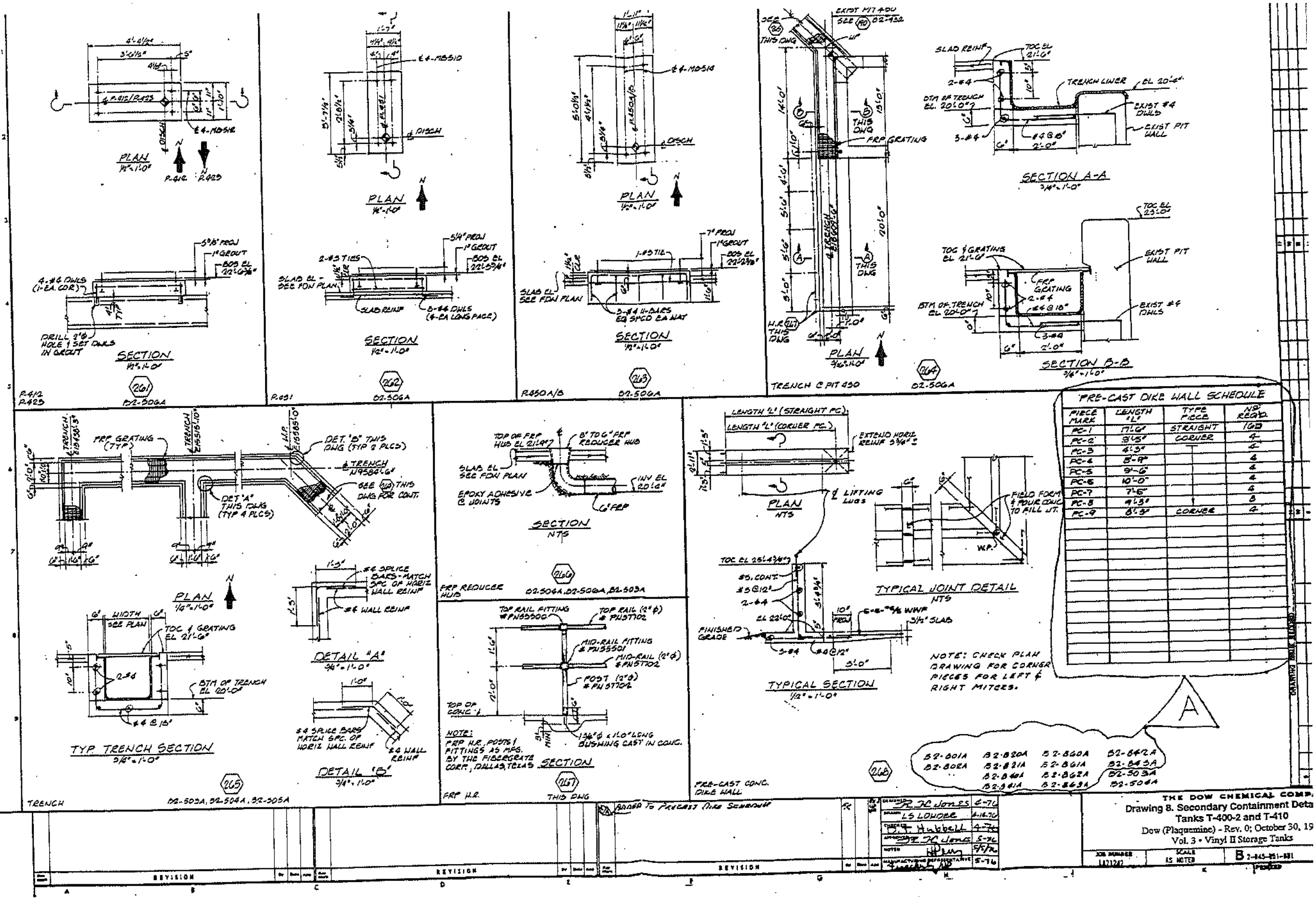
DRAWING ISSUE RECORD						

DESIGNED	W.BAILEY	12/01
DRAWN	W.BAILEY	12/01
CHECKED	JOHN HAGMANN	12/01
APPROVED		
PROJ. ENGR.	DEADRA HUGHES	12/01
PROJ. MGR.	SCOTT FREDRICKSON	12/01

THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION — PLAQUEMINE, LOUISIANA

Drawing 4. Secondary Containment for Tanks D-750 and D-751
Dow (Plaquemine) – Rev. 7: December 2004
Vol. 3 • Chlorinated Methanes Plant Engineering Report

DRAWING NUMBER	SCALE	DRAWING NO.	REV
185038	AS NOTED	B2-10B019-555F-201	A



PRE-CAST DIKE WALL SCHEDULE

PIECE MARK	LENGTH "L"	TYPE PIECE	NO. REQ'D
PC-1	17'-6"	STRAIGHT	16
PC-2	9'-5"	CORNER	4
PC-3	4'-5"		4
PC-4	8'-9"		4
PC-5	9'-6"		4
PC-6	10'-0"		4
PC-7	7'-6"		4
PC-8	9'-3"		8
PC-9	8'-3"	CORNER	4

THE DOW CHEMICAL COMP.

Drawing 8. Secondary Containment Deta

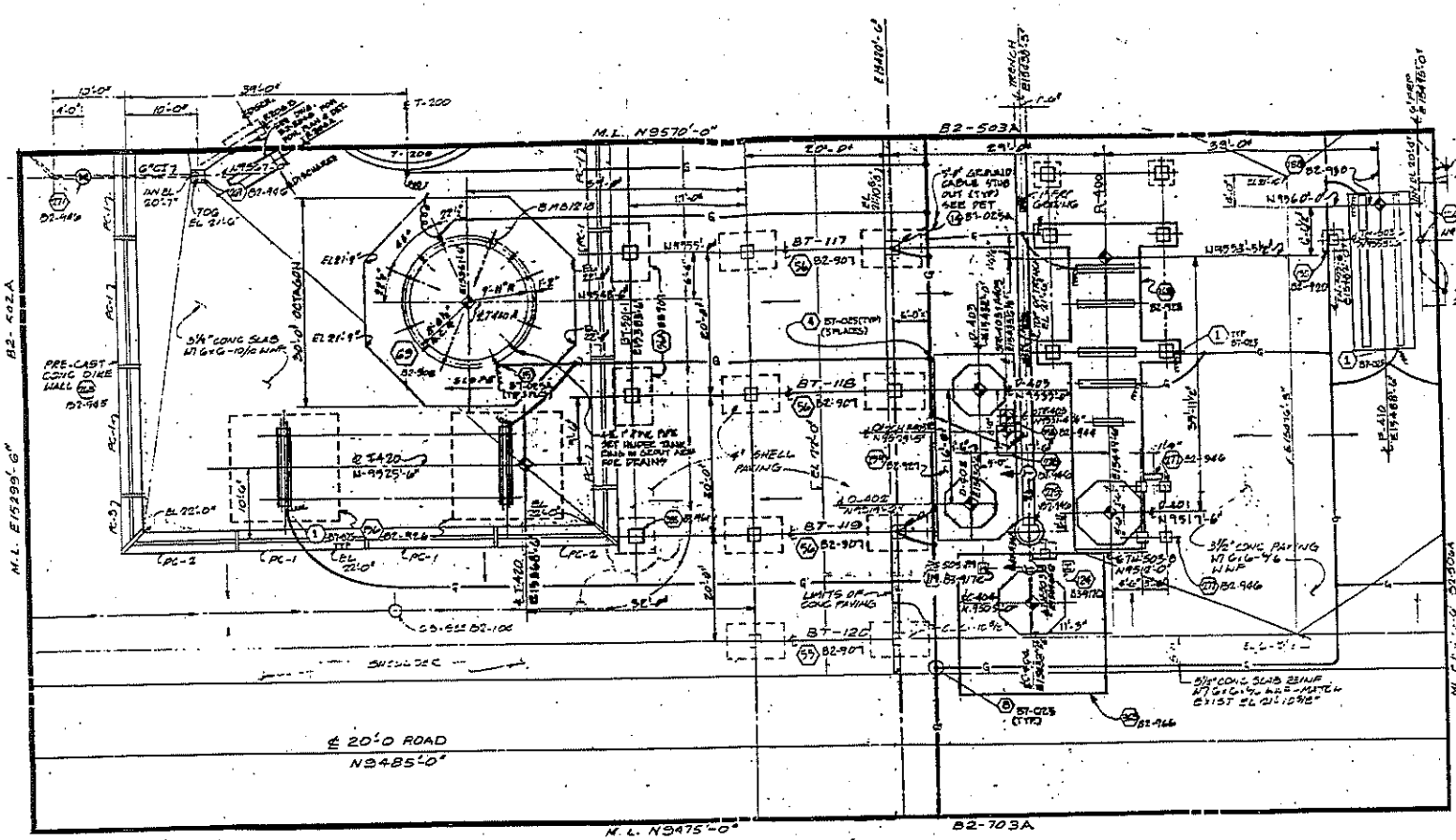
Tanks T-400-2 and T-410

Dow (Plaquemine) - Rev. 0; October 30, 19

Vol. 3 • Vinyl II Storage Tanks

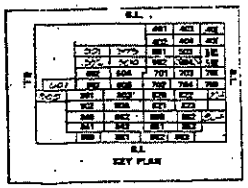
DESIGNED R. K. Jones 6-76
DRAWN L.S. Louder 4-16-76
CHECKED D.J. Hubbell 4-76
APPROVED R. K. Jones 5-76

JOB NUMBER 1A71242 — SCALE AS NOTED — B 2-845-851-881

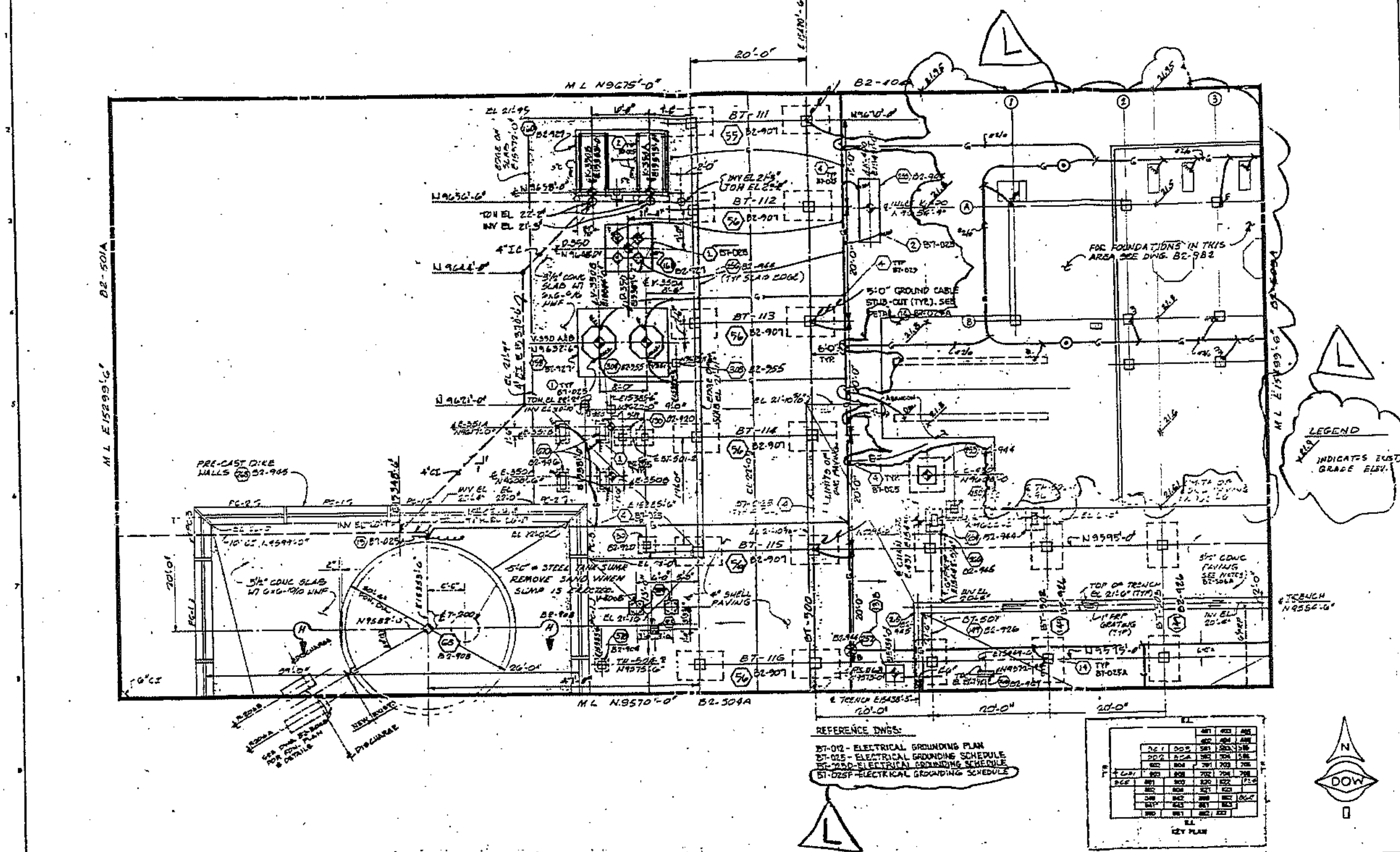


REFERENCE DWGS:

BT-012 - ELECTRICAL GROUNDING PLAN
BT-013 - ELECTRICAL GROUNDING SCHEDULE
BT-013B - ELECTRICAL GROUNDING SCHEDULE
BT-013C - ELECTRICAL GROUNDING SCHEDULE



THE DOW CHEMICAL COMPANY
Drawing 7. Secondary Containment 2 for Tanks T-400-2 and T-410
Dow (Plaquemine) - Rev. 0; October 30, 1998
Vol. 3 • Vinyl II Storage Tanks



	Revision				Revision				Revision		
	Revised detail N/A for V-351 & 350				Added fdns. for E-430, E-431, C-430, E-400 & TR-502-1; added conc area paving, trench & 6" FRP & D-400 fdn; added dike wall, fdns for E-350 A&B, E-551 A&B, B2-501-2				Added three upgrade fdns. (See B2-982). Also added exist. grade elevations & grounding.		
	Added F-206 A&B & referenced to dwg. & details. 72621-70952A				Added fdn for TH 506-E				Added fdn for E-350A, K350B & D-350 and 4" CI line w/...., add grounding		
	Added V-400 A & B. 85-5030				Added fdn's for V-351 & 5350						
	Added C404 anchor fdn. 85-5C501										

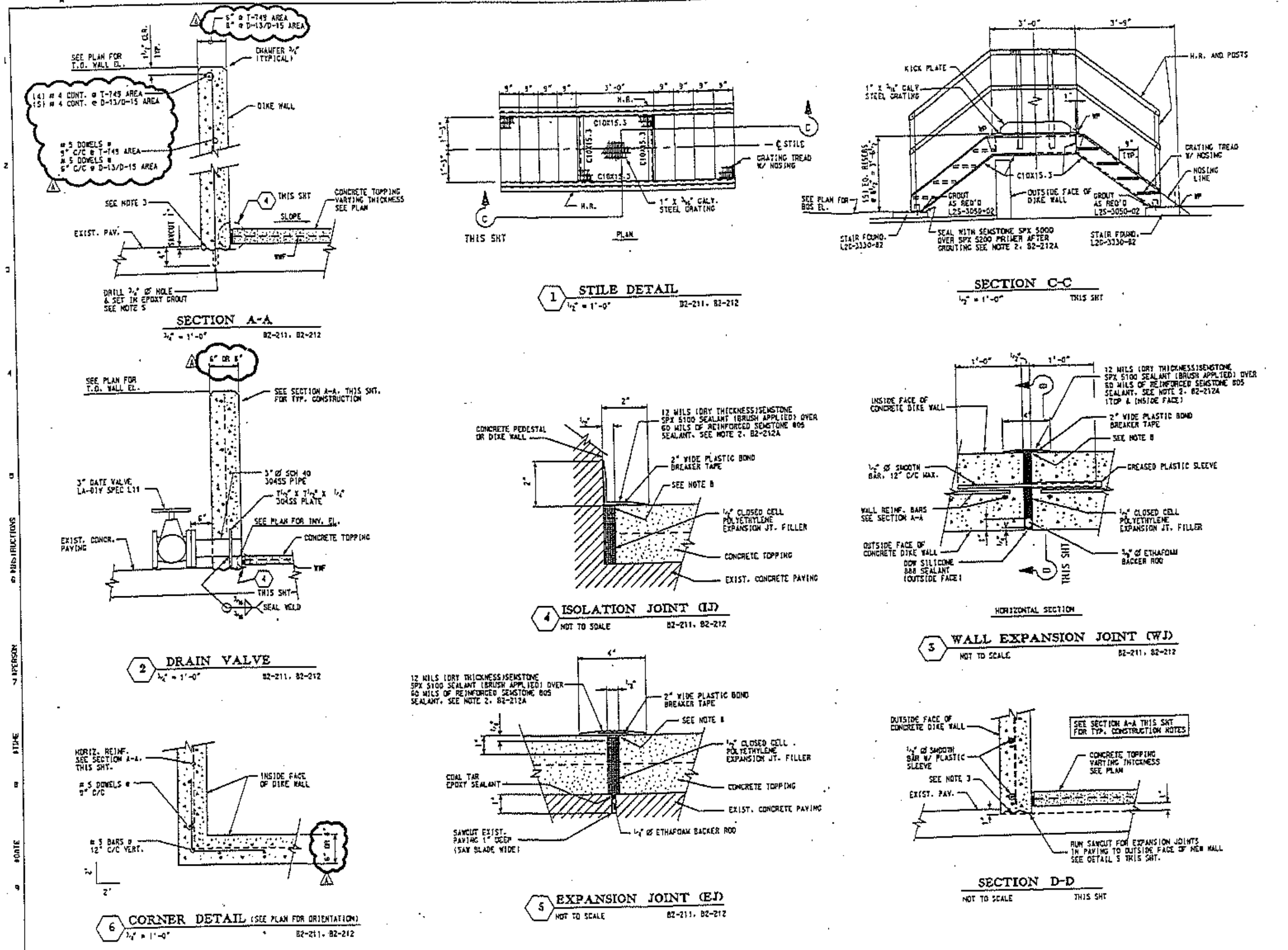
THE DOW CHEMICAL COMPANY

Drawing 6. Secondary Containment 1 for Tanks T-400-2 and T-410

Dow (Plaquemine) - Rev. 0; October 30, 1998

Vol. 3 • Vinyl II Storage Tanks

Scale 1/8" = 1'-0" — B 2-SC2 -751-891



GENERAL NOTES:

1. ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI IN 28 DAYS AND SHALL CONTAIN A MINIMUM OF 6.5 BAGS OF CEMENT PER CU. YD. OF CONCRETE. REBARS SHALL BE ASTM A-615, GRADE 60.
2. ALL CONCRETE SHALL CONTAIN 1.5 LB. OF POLYPROPYLENE FIBERS PER CU. YD. OF CONCRETE. USE SUPERPLASTICIZER CONFORMING TO ASTM C-494, TYPE F/G TO ENSURE A 5"- 6" SLUMP.
3. SAWCUT EXIST. PAVING 1" DEEP, ROUGHEN, CLEAN AND COAT CONCRETE WITH EPOXY BONDING COMPOUND PRIOR TO PLACING CONCRETE IN ADJACENT AREAS.
4. CHIP OUT & REMOVE EXISTING RAMP AND 4" DRAIN PIPE. PATCH EXIST. PAVING BELOW RAMP AS REQUIRED TO MATCH SURROUNDING AREA.
5. AFTER DRILLING HOLE, SWAB SIDE AND BOTTOM SURFACE AREAS OF HOLE TO SATURATION WITH LO-MOD EPOXY. FILL HOLE WITH HI-MOD EPOXY IMMEDIATELY PRIOR TO INSERTING DOWEL. ALLOW ADEQUATE TIME FOR CURING PRIOR TO POURING DIKE WALL.
6. SEAL ALL CRACKS IN THE EXISTING CONCRETE PAVING WITH COAL TAR SEALANT PRIOR TO PLACING CONCRETE TOPPING.
7. RAISE ALL BASE ELL SUPPORTS AND STEEL STANCHION SUPPORTS AS REQUIRED TO REST ON TOP OF NEW CONCRETE TOPPING.
8. JOINT MUST BE THOUROUGHLY CLEANED BY BLOWING WITH COMPRESSED AIR OR BY WIRE BRUSHING AS CONVENIENT.
9. NON-MECHANICAL EQUIPMENT GROUTING (L25-3050-02) SHALL BE TYPE "B" NON-SHRINKING, WATER BEARING GROUT.

STEEL NOTES:

1. ALL STEEL SHALL BE NEW PER ASTM A-36.
2. ALL STEEL INCLUDING GRATING, BOLTS, WASHERS AND NUTS SHALL BE HOT-DIPPED GALVANIZED.

REFERENCE DRAWINGS:

B2-211-C40-001 — DIKE WALL PLAN
B2-212-C40-001 — DIKE WALL PLAN

APPLICABLE SPECIFICATIONS:

L25-3001-01 — CONCRETE
L25-3050-02 — GROUTING (NON-MECH.)
L25-5120-00 — STRUCTURAL STEEL
L85-5521-70 — GALVANIZING
L4T-5513-01 — GALVANIZING REPAIR (MATERIAL)
N85-5513-01 — GALVANIZING REPAIR (APPLICATION)

APPLICABLE STANDARDS:

L20-5510-00 — STAIR DETAILS
L20-5510-02 — STAIR TREAD
L20-5520-10 — STAIR HANDRAIL DETAILS
L20-3330-82 — PAVED AREA STAIR FOUNDATION

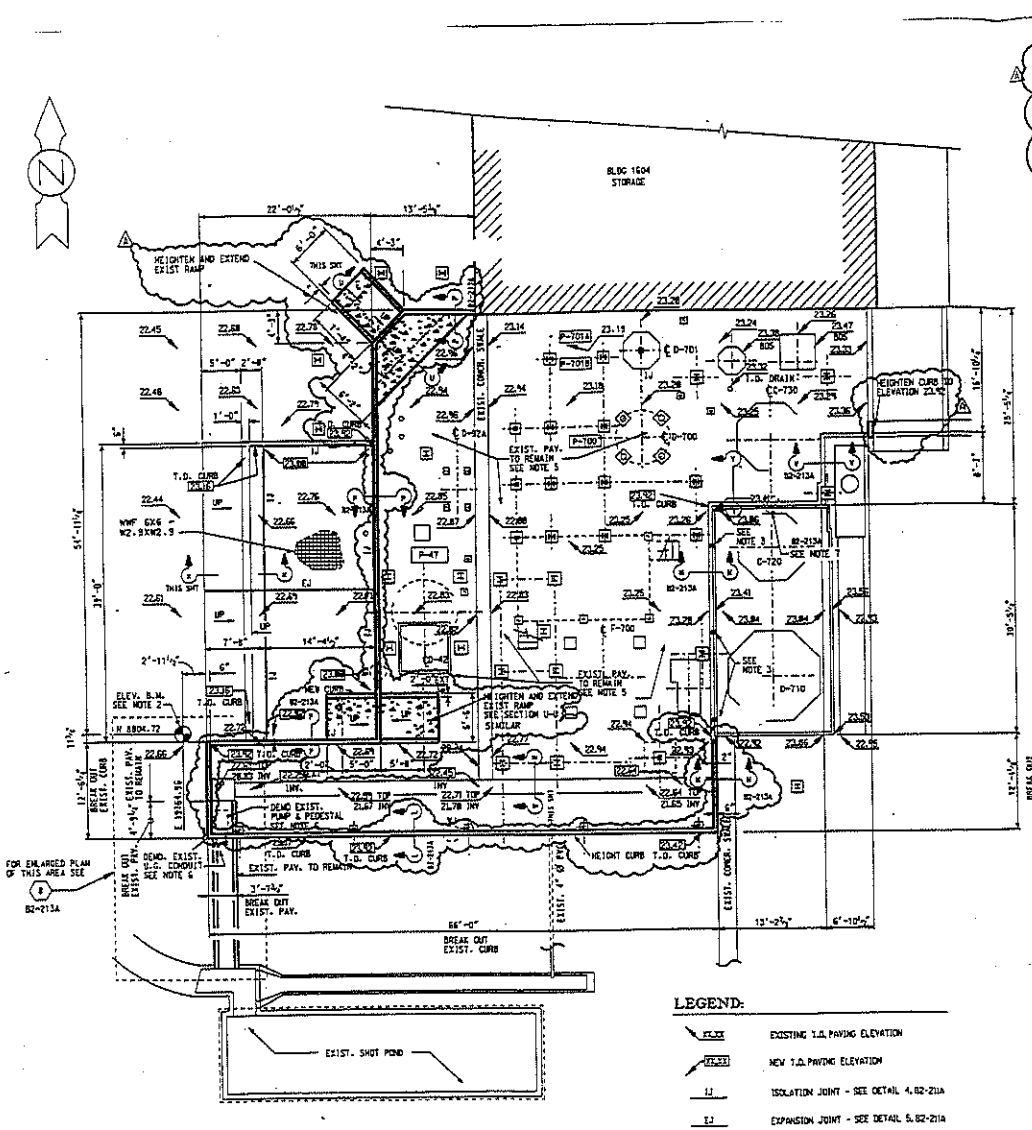
REV. MARK	REVISION	BY	CHK	APP	DATE
A	CHANGED WALL THICKNESS AT D-13/D-15 AREA FROM 8" TO 6 REVISED DIKE WALL REINFORCING AT D-13/D-15 AREA	BA	SC		11/09/93

DRAWING ISSUE RECORD		
DESIGNED	R. ATWOOD	4/93
DRAWN	R. ATWOOD	5/93
CHECKED	S. CHAKRAVARTY	5/93
PROJ. ENGR.	S. CHAKRAVARTY	9/93
MFG. REP.	K. NEWMAN	9/93

Drawing 9. Secondary Containment Details for Tanks D-13 and D-15

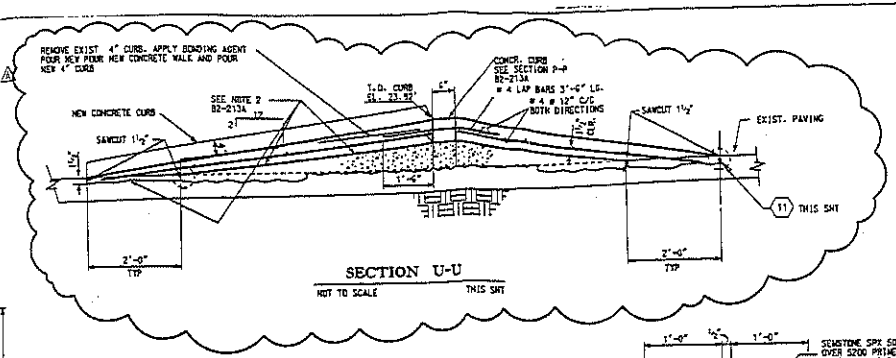
Dow (Plaquemine) - Rev. 3; January 15, 2002
Vol. 3 • Solvents/EDC Storage Tanks

SCALE: NOTED — B2-211A-C40-001 — A

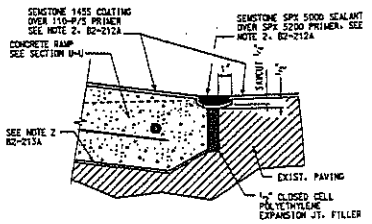


LEGEND:

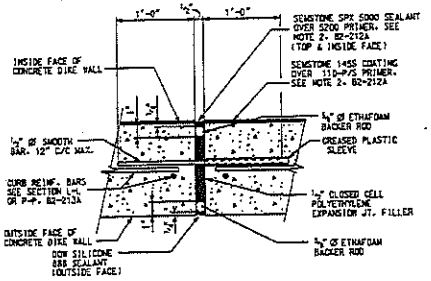
- EXISTING T.O. PAVING ELEVATION
- NEW T.O. PAVING ELEVATION
- ISOLATION JOINT - SEE DETAIL 4, B2-211A
- EXPANSION JOINT - SEE DETAIL 5, B2-211A
- WALL JOINT, SEE DETAIL 12, THIS SHT



SECTION U-U
NOT TO SCALE THIS SHT

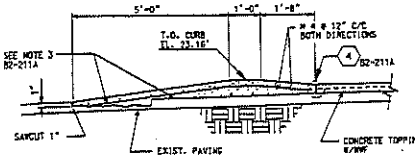


11 JOINT DETAIL
NOT TO SCALE THIS SHT

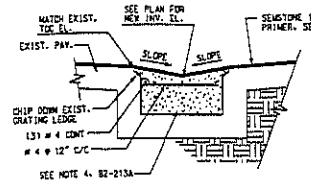


HORIZONTAL SECTION

12 WALL EXPANSION JOINT
NOT TO SCALE THIS SHT



SECTION X-X
½" = 1'-0" THIS SHT & B2-213A



SECTION W-W
½" = 1'-0" THIS SHT & B2-213A

NOTES:

1. ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI IN 28 DAYS AND SHALL CONTAIN A MINIMUM OF 6.5 SACKS OF CEMENT PER CU. YD. OF CONCRETE. REBARS SHALL BE ASTM A-615, GRADE 60. ALL CONCRETE SHALL CONTAIN 1.5 LB. OF POLYPROPYLENE FIBERS PER CU. YD. OF CONCRETE. USE SUPERPLASTICIZER CONFORMING TO ASTM C-494, TYPE F/G TO ENSURE 4 5"- 6" SLUMP.
2. ELEVATION REFERENCE DATUM - BRASS MONUMENT CP16-07, T.O. DISK = EL. 22.66'.
3. DEMOLISH EXISTING STOR COLUMNS AND REPAIR ACID BRICK CURB PRIOR TO CONSTRUCTING NEW CONCRETE CURB.
4. WATER BLAST AND PATCH EXISTING PAVING IN THIS AREA PRIOR TO CONSTRUCTING NEW CONCRETE.
5. ALL CRACKS IN EXISTING PAVING AND JOINTS BETWEEN EXTESTING AND NEW CONCRETE SHALL BE SEALED WITH SEASTONE 305 FLEXIBLE SEALANT (CAULK GRADE). COAT SEALANT WITH SEMSTONE SPX 5000 (BRUSH APPLIED).
6. COORDINATE REMOVAL OF U.G. CONDUIT, PUMP AND PEDESTAL WITH BLOCK OPERATIONS PERSONNEL TO INSURE SERVICES ARE DISCONNECTED PRIOR TO WORK.
7. NOTCH NEW CURB TO MAINTAIN 1" CLEAR AROUND 4" DIA. PIPE RUNNING NORTH FROM BOTTOM OF C-720.
3. ALL EXISTING SEMSTONE COATING SYSTEM DISTURBED AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE REPAIRED TO ORIGINAL CONDITION.

REFERENCE DRAWINGS:

B2-211A-C40-001 — CONCRETE DETAILS
B2-213A-C40-001 — CONCRETE DETAILS

APPLICABLE SPECIFICATIONS:

L25-2200-02 — EXCAVATION & FILL
L25-3001-01 — CONCRETE

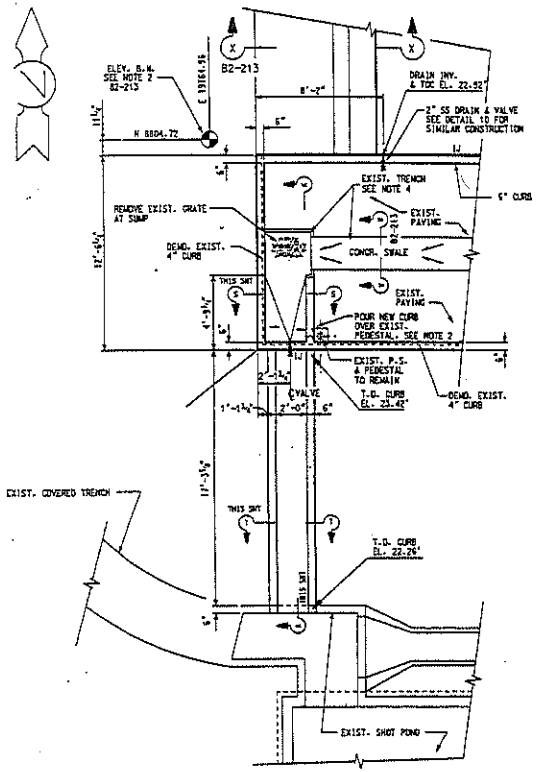
REVISION	BY	CHK	APP	DATE	REVISION	BY	CHK	APP	DATE
RAISED EXISTING CURB, RAISED AND EXTENDED (2) RAMPS ADDED NEW CURBING PROJ# 1202272	WB	JH		11/18/98					

DRAWING ISSUE RECORD

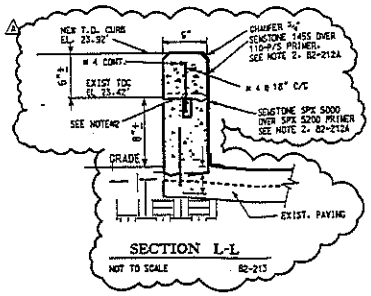
DESIGNED	B. ATWOOD	8/93
DRAWN	B. ATWOOD	9/93
CHECKED	S. CHAKRAVARTY	9/93
APPROVED		
PROJ. ENGR.	S. CHAKRAVARTY	9/93
MFG. REP.	M. NEWMAN	9/93

THE DOW CHEMICAL COMPANY
Drawing 10. Secondary Containment for Tanks D-42B, D-92A, and D-700
Dow (Plaquemine) - Rev. 1; June 3, 1999
Vol. 3 • Solvents/EDC Storage Tanks

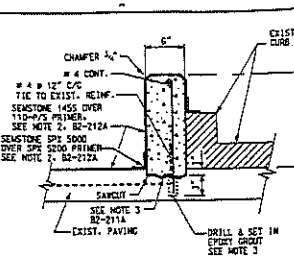
DRAWING NUMBER B2-213-C40-001 REV. 1
SCALE ½"=1'-0"



8 ENLARGED PLAN
1/4" = 1'-0" B2-213



SECTION L-L
NOT TO SCALE B2-213



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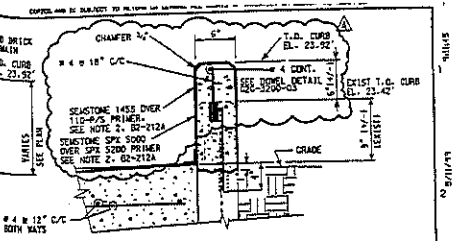

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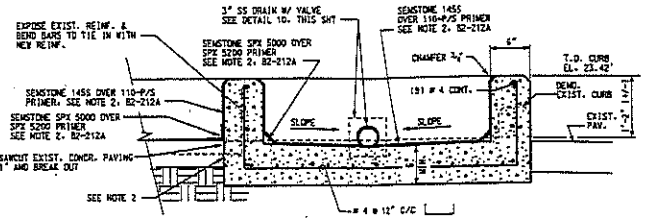
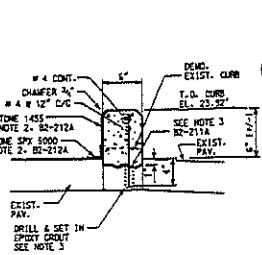


SECTION S-S
NOT TO SCALE THIS SHT



SECTION V-V
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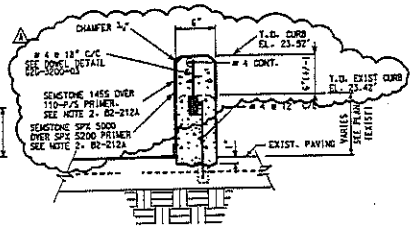

SECTION P-P
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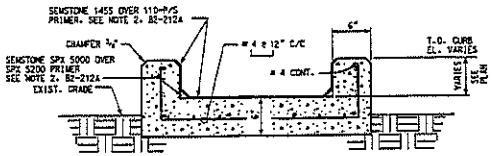
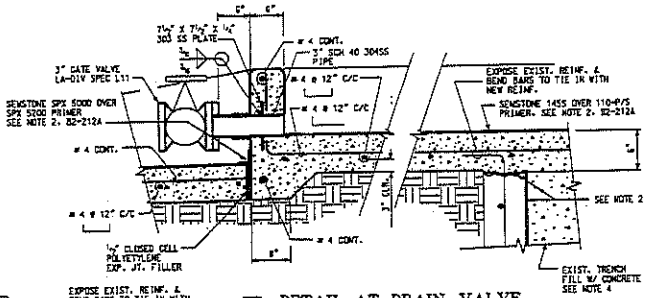
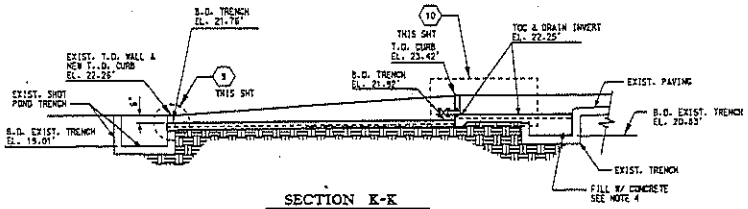


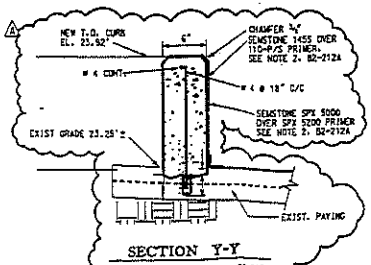
SECTION T-T
NOT TO SCALE THIS SHT



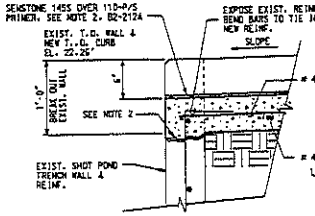
10 DETAIL AT DRAIN VALVE
NOT TO SCALE THIS SHT



SECTION K-K
1/4" = 1'-0" THIS SHT



SECTION Y-Y
NOT TO SCALE B2-213



9 DETAIL AT EXIST. WALL
NOT TO SCALE THIS SHT

NOTES:

1. FOR GENERAL NOTES AND APPLICABLE SPECIFICATIONS AND STANDARDS SEE DWG. NO. B2-211A-C40-001.
2. ROUGHEN, CLEAN AND COAT EXISTING CONCRETE WITH EPOXY BONDING COMPOUND PRIOR TO PLACING CONCRETE IN ADJACENT AREAS.
3. AFTER DRILLING HOLE, FILL HOLE WITH MIXED EPOXY IMMEDIATELY PRIOR TO INSERTING DOWEL. ALLOW ADEQUATE FOR CURING PRIOR TO POURING CURB.
4. PUMP OUT EXIST. TRENCH. ROUGHEN AND CLEAN INSIDE SURFACES PRIOR TO FILLING WITH CONCRETE.

REFERENCE DRAWINGS:
B2-213-C40-001 — CURB LOCATION PLAN

REVISION	BY	CHK	APP	DATE
HEIGHTEN PORTIONS OF EXISTING CURB & RAMPS.*100272	WB	JH		11/11/98

DRAWING ISSUE RECORD							
ISSUE NO.	REV	MATERIAL OR JOB SPEC	BID	FAB	CONST	NCR
		DATE ISSUED FOR				

DESIGNED	R. ATWOOD	8/93
DRAWN	R. ATWOOD	9/93
CHECKED	K. CHAKRAVARTY	9/93
APPROVED		
PROJ. ENGR.	S. CHAKRAVARTY	9/93
MFG. REP.	M. NEWMAN	9/93

STATUS: P.E. SEAL

THE DOW CHEMICAL COMPANY
Drawing 11. Secondary Containment Details for Tanks D-42B, D-92A, and D-700
Dow (Plaquemine) - Rev. 1; June 3, 1999
Vol. 3 - Solvents/EDC Storage Tanks

SCALE	DRAWING NUMBER	REV.
NOTED	B2-213A-C40-001	0